LEUCORRHŒA

AND OTHER VARIETIES OF GYNÆCOLOGICAL CATARRH

A TREATISE ON THE CATARRHAL AFFECTIONS OF THE GENITAL CANAL OF WOMEN; THEIR MEDICAL AND SURGICAL TREATMENT.

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PHILADELPHIA, PA.:
BOERICKE & TAFEL
1910

PREFACE.

Many of the minor diseases peculiar to women are associated with disorders of the mucous membrane that lines the genital canal, but we are rather inclined to disregard these affections in favor of operative gynæcology, and for the development of surgical technique. This class of disease, however, merits careful consideration, not only because of its primary importance, but on account of its significance as an etiological factor in more serious maladies.

The commonly used term, leucorrhœa, signifies only one form of catarrh—a milky, white flow—and is, therefore, not comprehensive enough to embrace every variety of mucous discharge, while catarrh, used in the same sense as when applied to other mucous membranes, conveys a more accurate understanding of the pathology and clinical history of the gynæcic mucous membrane disease.

Specific catarrh is not included, for the reason that it constitutes a special class of disease, that requires special treatment.

The classification of gynæcological catarrh here adopted is based upon the character of the discharge. Such a grouping is not entirely satisfactory, but the anatomical divisions of the genital canal, which in health are clearly defined, become blurred in disease, and in consequence cannot be relied upon for classification; and, moreover, no form of gynæcological catarrh belongs to any one period of life, and, therefore, the clinical history alone cannot be relied upon for this purpose.

Part IV., dealing with Therapeutic Suggestions, includes a repertory, and is, as its name implies, merely suggestive. No attempt is made to record more than the actual symptoms of catarrh, with a few concomitants and generalizations. Because of the lack of exactness in recording symptoms, it has in some instances been found difficult to distinguish catarrh from the discharge of a malignant disease, or neoplasm, but such conditions have been eliminated as much as possible.

130 West 57th Street,
New York City.

November, 1910.

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LEUCORRHŒA.

CHAPTER I.

ANATOMY OF THE GENITAL CANAL—PHYSIOLOGY OF THE PARTS ESPECIALLY INVOLVED IN CATARRH—FUNCTION OF THE MUCOUS MEMBRANE.

The genital canal, the part immediately involved in gynæcological catarrh, is in the form of two opposing angles, the vertical line of union extending from the vulva to the fundus of the uterus, the horizontal lines to the fimbriated openings of the Fallopian tubes. These passages are lined throughout with mucous membrane, the epithelium and construction of which are variously modified to meet physiological uses.

The anatomical divisions of the canal, with which gynæcological catarrh is concerned, are, from without inwards, the vulva, the vagina, the portio-vaginalis, the os uteri, the cervix uteri, and the Fallopian tubes.

The frame-work of the uro-genital system, of which the genital canal is a part, is developed from the embryonal glands—the Mullerian ducts. These organs, two in number, by fusing, the process begins in the third month, and the septum thus made is not completely removed until late in the eighth month, form the uterus and vagina, the Fallopian tubes representing the portions of the Mullerian ducts that remain intact.

The Mullerian ducts are developed in the mesoblast, the middle or intermediate layer of the blastoderm, from which they derive their connective tissue and muscular superstructure, but by a process of invagination of the hypoblastic layer of the cœlum they receive a covering of mesothelial cells which ultimately furnishes the entire genital canal with a mucous membrane.

Beyond the fact that in some parts, notably the corpus uteri, where the arrangement of lining membrane is unlike that of any other mucous membrane, for here the glandular layer is directly adherent to the subjacent muscularis, and there is an absence

of any intervening connective tissue subtratum or submucosa, the mucous membrane of the genital canal does not differ materially from mucous membranes generally.

This tissue, the use of which is to furnish a protective covering for internal parts that communicate with the surface of the body—an internal skin—is built upon a simple plan, epithelial cells and a supporting structure, with epithelial invaginations that form glands having a simple, rarely a racemose arrangement. These glands are irregularly distributed, but while they secrete mucus they cannot be regarded as an essential part of mucous membrane architecture; for the function of mucous elaboration is also performed by the epithelial cells—goblet cells—which characteristic distinguishes them from all other cell bodies.

The supporting structure or corium is composed of connective tissue intermingled with lymphoid tissue. Between this and the epithelium is usually found a basement membrane composed of flattened cells which follow all the inequalities of the mucous membrane, where it aids in the formation of the

gland walls. Beneath this is a layer of thin non-striated muscular tissue, which forms the deepest part of the mucous membrane. This, however, is not always present.

Mucous membranes are always abundantly supplied with blood vessels. The arteries and veins divide in the submucous tissue, sending a network of capillaries to the corium, where they lie immediately below the epithelial layer.

The glands with which the genital mucosa is liberally supplied, are irregular in distribution and arrangement, some parts of the canal, for example the portio-vaginalis, being wholly devoid of them. The simple follicles are lined with the same variety of epithelium that invests the mucous membrane in which they are situated, and open perpendicularly to the surface upon which they pour their peculiar secretion. When present at all they are very numerous, as in the upper two-thirds of the cervical canal, where it is estimated there may be at least ten thousand of these minute bodies.

No glandular structures exist in the corpus uteri at birth, these formations are

entirely post-embryonic. Nor do they appear as more than fissures made of the folds of the mucous membrane before the general change that ushers in puberty; when coincident with that organic evolution the fissures assume a glandular form and develop in great numbers, a process that is repeated and passed through with each subsequent menstruation and pregnancy.

On the basement membrane rests a layer of epithelium. Its cells, which are derived from the hypoblast of the blastoderm, are to be looked upon as the essential part of all mucous membranes. Like other epithelial cells they are transitory, and only assume their characteristic form subsequent to evolution.

Not all the cells that make up the epithelial covering of the mucosa are mucous forming bodies. Squamous cells which appear more abundant in the region of external openings do not assume this function, but in these parts mucous glands are more numerous, and the protective material is supplied in sufficient quantity by them.

The epithelial covering of mucous mem-

brane is highly permeable, especially where squamous epithelium predominates. In these situations lymphoid tissue is more abundant, and lymphoid elements in the form of mucous corpuscles escape from the reticular structures.

The epithelial cells of the genital canal vary in type according to location, but under the demand of physiological requirements, or pathological irritation, one form may assume any other form, and so obliterate normal structural boundaries. There are no well attested exceptions to the teaching that "cells breed true," but this law applies to the two great anatomical divisions, epithelial, and connective tissue—epiblastic and mesoblastic. An epithelial cell may change its form, indeed one of its chief offices is to harmonize in this respect with local requirements, but that which distinguishes an epithelial cell from a connective tissue cell continues with the integrity of the cell body.

Beginning at the border of the labia major, the mucous membrane, which is here continuous with the skin but separated from it by a well marked line of structural differences,

passes over the nymphæ and clitoris to be prolonged into the vagina and urethra. Up to the hymen, or its remains, the membrane is covered with scaly epithelium derived from the hypoblast, and liberally provided with mucous crypts and follicles, and with glands that secrete an unctuous substance. Sebaceous glands are especially numerous beneath the prepuce, upon the labia major and outer surface of the nymphæ. But few, if any, mucous cells exist normally in this part of the genital canal, and, therefore, the substance with which the surfaces are bathed is derived chiefly from the glands, and lymphoid structures.

The vagina, extending from the hymen, or urogenital diaphragm, to the ring in which the portio-vaginalis of the uterus rests, is lined with many layers of squamous epithelium derived from the epiblast. The mucous membrane being more ample than the underneath submucosa, is thrown into columns and rugæ. Mucous glands are few in number, save in the smoother portions of the canal, the upper third of the vagina. They, together with mucous cells, bathe the

vaginal walls in an acid secretion, but the vaginal mucosa is otherwise structurally quite homologous to the skin.

The mucous membrane is continued over the portio-vaginalis, which comprises all structures between the os externum and the vaginal fornices, or ring. It is covered with squamous epithelium, the cells of which secrete an abundant acid mucus. The secretion of the portio, however, is not a true glandular product, as there are no glands in this region; it results from the delequescence and shedding of the superficial epithelial cells, and the process by which the goblet cells give up their contents probably without destruction of their wall.

The stratified epithelial layer of the vagina is continued with more or less distinctness beyond the external os into the cervical canal, the lower third of which it lines. The upper two-thirds are lined throughout with a single layer of epithelial cells of cylindrical type, the surface of the membranes being studded throughout with the minute orifices of numerous glands. These, for the most part, simple follicles, secrete a thick,

viscid alkaline mucus. Non-ciliated epithelium lines the follicles, the cylindrical cells of which undergo the mucous or calyciform change which belongs to the elaboration of their peculiar secretion. The characteristic "goblet cells" are fairly numerous in the membrane covering this part of the cervical canal.

The interior of the corpus uteri is covered with a single layer of columnar cells. The underneath membrane is much thicker than the cervical membrane, its maximum thickness being found at about the middle of the cavity. Its surface is studded with an immense number of minute depressions, the openings of small tubular glands. These glands also elaborate an alkaline fluid, but it is devoid of the viscid properties of the cervical secretion. The epithelial cells differ from those lining the glands of the cervix, in that none of them present calyciform characters.

A very marked difference exists between the time at which the glands of the corpus and cervix appear. At the beginning of the ninth month of gestation the epithelium of

the cervix begins to undergo mucous transformation, indicative of secreting activity. Numerous follicles also appear, and as a result of activity the canal at birth is filled with a mucous plug, which effectually closes the interior of the uterus.

Quite different is the history of the glands of the corpus, for, while in the sixth month there are found traces of tubular involutions of the cylindrical cell lining membrane, which later developes into glandular structures, no true functionating glands are found in the corpus at birth, these organs, as before stated, being post-embryonic.

As puberty advances the development of glandular structures and of the calyciform epithelial cells progresses rapidly, and is restimulated at each menstruation, and gestation, but at the climacteric obsolescence the process of secretion, both from glands and the mucous epithelial, begins to recede gradually. The endometrium is changed, its cellular elements disappear, and the activity that marked reproductive life is folded up and ceases.

The behavior of the epithelial cells that

line the utricular glands is of especial interest in connection with the gynæcological catarrh of senility. These glands should in health wholly disappear, and their function terminate with the completion of the menopause, but occasionally, under not always determinable systemic and local conditions, they degenerate and become pathological factors of moment to the clinician.

The particulars in which the mucous membrane lining the body of the uterus differs from all other mucous coverings have given rise to doubts as to whether this should be classed among mucous membranes. As, however, the epithelial cells do assume calyciform characteristics, and the glands secrete mucus, the name does not seem to be misapplied, even though there is an absence of submucous tissues, and the glands are directly adherent to the subjacent muscularis. Possibly it would be more accurate anatomically to consider this structure as lymphatic tissue, and its glands as pseudo-glands, as merely pits honey-combing the epithelial layer, but its function is that of a mucous membrane, and unnecessary confusion would follow a change of name.

Perhaps more than any other epithelial cells those of the genital canal show a remarkable power of repair after removal or injury. Curetting and operations on the vagina and cervix are followed by very rapid regeneration of epithelium.

The mucous membrane lining the Fallopian tubes consists of columnar epithelium, connective tissue, and musculature. It is continuous with that of the uterus, but acquires a submucous layer at the beginning of the isthmus. The membrane is thrown into longitudinal folds which become more numerous in the direction of the ampulla. True glands do not exist in the mucous membrane of the Fallopian tubes. There is a honey-comb arrangement of the tubal epithelium, similar to that found in the uterus, but these are no more than depressions that impinge upon the submucous tissue. At the border of the fimbria exists the demarcation between the mucous membrane and the serous structure of the peritoneum. This point marks the anatomical limit of the catarrhal diseases of the female genital canal. The physiology of the mucous membrane of

the genital canal has been anticipated in the foregoing review of its anatomy. The really essential element, whether it functionates on the lining membrane or in a gland cavity, is the epithelial cell that has acquired the habit of elaborating mucus. While a corium of well recognized construction forms part of a typical mucous membrane, this is not indispensable, as attested in the lining of the uterine corpus; nor are glandular bodies necessary to distinguish this tissue.

The incentive for an epithelial cell to elaborate mucus can be none other than a response to a physiological demand, for it is not found that the columnar cells of the mucous membrane differ from other columnar cells until they undergo changes which convert them into goblet cells in the process of mucous secretion. Not all the cells that cover a mucous membrane undergo this change, for in health the larger number remain simple columnar cells, but capable of becoming mucous forming cells under the stimulus of physiological requirements or pathological contamination.

The elaboration of mucus within the pro-

toplasm of epithelial cells converts these bodies into goblet or chalice cells by the enormous distention of their walls with mucigen. The mucus is then discharged from the end of the cell, but the subsequent fate of the cell is uncertain, for it is not determined whether after being freed of its contents the cell is reconverted into an ordinary columnar cell, or whether it remains a goblet cell to be again filled with mucus, the acquired cell form and function remaining permanent. It is probable that the latter cycle is that of healthy secretion, but that under the incentive of disease—catarrh—the process being rapid, epithelial cells have not time to mature, and are cast off with the discharge, their places being taken by newly formed bodies. Such imperfectly emptied goblet cells are frequently found mingled with the mucous and lymphoid elements of both acute and chronic catarrh of the genital canal.

Reference has been made to the alkaline reaction of the uterine secretion, and the acid reaction of that of the vagina. These properties do not seem to depend upon a specializ-

ing function of either the surface goblet epithelium, or that lining the mucous glands *in loco*. It is more likely that all mucus when secreted is alkaline, and that it becomes acid in the vagina owing to the presence of a special vaginal bacillus that in health, owing to the cervical plug, cannot find its way into the uterus. The bacillus has a protective or antagonistic action upon pathogenic bacteria, which, though always present, cannot develop beyond the capacity of disposal as long as the normal standard of acidity is maintained. Under conditions of infection, pathologic bacteria are met at the vulva by the acid secretion of the vagina, and if they chance to pass this sentinel the mucous plug at the os acts as a further barrier against invasion of the uterus. During the period of lochial discharge the normal vaginal bacilli disappear. They are present during pregnancy, and reappear under healthy conditions at the termination of the puerperium.

Inasmuch as but few pyogenic cocci can live in an acid medium, this reaction of the vaginal secretion is recognized as nature's protection against the infection of the uterus

from without. Almost any variety of micro-organisms may be found in the vulva, gonococci, staphylococci, streptococci, and even tubercle bacilli, without invading the vagina, immunity being insured as long as the secretion remains acid, and the vaginal bacilli are in physiological numbers and activity. The normal secretion of the corpus uteri is a thin colorless mucoid fluid, and is free from micro-organisms. When, however, the cervical barrier is once broken down and micro-organisms enter the cavity of the uterus, they multiply with great rapidity and give rise to the most serious diseases of the female pelvis.

The secretion of the Fallopian tubes is also alkaline, and in health is free from micro-organisms.

A study of the mucous membrane of the genital canal brings out several salient points concerning its function. In common with mucous membrane generally it serves the purpose of protecting the surface from the invasion of micro-organisms, for mucus in itself is not a favorable medium for the development and growth of bacilli, but this se-

cretion offers an additional safeguard in an acid reaction at the entrance of the canal, and in the midway plug of mucus, such precautions being necessary because of the direct communication with the peritoneal cavity by way of the ova ducts. Too much stress cannot be laid upon this, nor would it be difficult to magnify the importance of maintaining a healthy state of the mucous membrane of the genital canal. It may with safety be asserted that no infection of the uterus can take place unless introduced from without, and that this cannot be introduced save mechanically, or by breaking down the barriers that nature has constructed for defense.

CHAPTER II.

THE NATURE OF CATARRH IN GENERAL—THE CAUSES OF GYNÆCOLOGICAL CATARRH—INFECTION—CONSTITUTION—MECHANICAL—EXANTHEMATOUS DISEASES.

Catarrh is exclusively a product of mucous membranes. It is a mucoid degeneration that finds its physiological type in the mucous secretion of mucous membrane and mucous glands.

In its simplest form the degeneration shows itself as an excess of function. Goblet cells are developed in larger numbers, and their protoplasm elaborates a surplus of mucus. In this manner physiological secretion is increased, and the first stage and simplest variety of catarrh exists. But the perverted behavior of the goblet cells is not long confined to unnecessary multiplication, and the excessive secretion of mucus. The cell wall, being enormously distended, bursts, the cell perishes, and mingles as a degenerated body with the catarrhal discharge.

Nor is the pathological process limited to these bodies, for early the cylindrical epithelial cells that cover a large area of the mucous surfaces, and that do not enter actively into the elaboration of mucus, begin to multiply in excess of physiological requirements. These are cast off, and also go to make up the catarrhal discharge. By gradual and certain stages further degeneration of tissue follows, the desquamated elements mingling with the secretion. In this manner a discharge, at first characterized by nothing more than an excess over functional requirements, assumes a positive and well marked pathology, and a process which in the beginning involved only superficial structures, the epithelial covering, progressing, attacks the corium, its basement and submucous layers.

Even in the early stages of catarrh, when the condition represents no more than an excess of functional activity, the protective service of the mucous membrane is rendered less effective, and the dangers of infection from without are in like measure increased. In more advanced stages, when tissue degeneration has progressed to pus formation,

and local destruction has involved the arterial, and venous walls, nature's protective barrier is entirely broken down, not only against invasion from without, but the internal secretions, losing their acidity, become generators of disease, and add to the dangers that attend gynæcological catarrh.

All catarrhs of the genital canal have their origin in local congestion and irritation. We will find this a good working hypothesis. The irritation, by determining more blood to the parts, stimulates functional activity, and results in rapid cell proliferation, consequent immature cell formation, and imperfectly elaborated secretion.

But when we have said this we have not gone very far in sounding the etiology of gynæcological catarrh; we must know the causes of irritation before we can successfully grapple with the disease, either prevent it or cure it when fully developed.

The local causes of the various irritations that induce catarrh of the genital canal, and that stand in the relation of cause and effect, are always microbic, and are introduced from without. I have never seen a case of

established catarrh in which there was not some degree of corium congestion, irritation, and an examination of the discharges leaves no ground to doubt that the cause always lies in micro-organisms that have gained entrance through the vagina. In other words, catarrh of the genital canal is a microbic disease; in kind similar to any other infection, in degree milder than many that may attack the mucosa of the uro-genital system.

Some cases, as the catarrh of a young girl, or of a virgin with an almost imperforate hymen, may with difficulty be fitted into this hypothesis, but if we will examine such cases carefully, their constitution, which may so alter the character of the mucous secretion as to reduce its protecting qualities, and allow the ever-present bacteria to penetrate below the epithelial lining, or inquire into their conditions of life, there will be found a *causa sine qua non,* without which the essential mucoid degeneration could not have taken place.

It may be asked why the severer varieties of infection, tubercular, and septic, do not more frequently develop in the genital canal;

why all women are not in danger? All women are in danger, but not always. As long as the secretion of the vagina remains acid, they are immune, unless, and this is a point of the utmost importance, there is a mechanical abrasion, and the absorbing surfaces of the corium are laid bare. The latter is unlikely to occur in virgins who have not been examined vaginally; but the absence of acidity in the vagina may be a part of a general dyscrasia, or of errors in nutrition, so frequently found in connection with the genital catarrh of girls and young women. Such cases are among the most difficult to treat, for we have no exact means to determine how far the catarrhal infection extends, inasmuch as the vagina is a common outlet and drain with the uterus. The same hindrance opposes itself to exact diagnosis in all genital catarrhs, but the obstacles are greater in young girls and unmarried women, in whom the impossibility of separating the uterine from the vaginal secretion must always be reckoned with. They may submit to a digital examination, but the use of instruments, even a small speculum, will be refused, and very properly unless as a last resort.

The mechanical removal of the protective epithelial covering is a frequent cause of gynæcological catarrh. The examining finger, the unskillful use of instruments, even the vaginal douche, may be sufficient to abrade the mucous membrane, and I have been led to believe that rupturing the hymen during coitus has in some instances been the door through which the invasion of micro-organisms took place.

A constitution under the influence of which there is a vicious metabolism, a perverted function of all the secreting organs, and a tendency to the development of immature cell forms and their consequent degeneration and nerosis, may lie at the foundation of many varieties of idiopathic gynæcological catarrh. Young girls of a scrofulous diathesis suffer from catarrh of all the mucous membranes, and are very subject to catarrh of the genital canal. Adults who are below par offer a corresponding decreased resistance to microbic invasion. Women who are over-worked mentally or physically, women whose reparative processes are weakened, among the rich by over-eating and an

ennervating life from luxury, among the poor by insufficient nourishment and privation, reach the same results, derangement of gland function, perverted secretions, and, finally, gynæcological catarrh in one form or another. Both classes become subjects of uterine, ovarian and tubal diseases that are only too frequently etiological factors in affections of the genital mucous membrane.

It is a matter of frequent clinical record that the exanthematous diseases, especially measles and scarlet fever, leave as sequelæ catarrh of the throat, nose and middle ear; quite as often genital catarrh may be traced to the same cause, a vaginal discharge of children and of young girls following an attack of one of these diseases. Suppressed exanthemata may also be followed immediately or remotely by catarrhal affections of the genital canal.

CHAPTER III.

Classification of Gynæcological Catarrh—Simple Catarrh, in Infants and Children, Treatment, Local—In Adults, Treatment, Local, Medical—In Young Girls, Mucopurulent Catarrh (Leucorrhœa), Adults, Children, Treatment, Local, Constitutional, Medical—Purulent Catarrh—Senile Purulent Catarrh, Treatment, Local, Operative, Curettage, Trachelorrhaphy, Constitutional, Medical — Sanguinous Catarrh, Treatment, Medical—Sanguinous, Senile Catarrh, Treatment.

The most practical and useful classification of gynæcological catarrh is based on clinical data so far as they are concerned with the character of the discharge. A more accurate and scientific arrangement would consider the anatomical divisions of the genital canal from which the discharge could be demonstrated to take place, as vulvar ca-

tarrh, vaginal catarrh, uterine catarrh, and tubal catarrh, but while it might be possible to establish such distinctions in the earliest stages of the disease, the fact that the morbid action does not long remain confined to the part in which it originates, resulting in mixing the flow from the several regions and consequent blurring of clinical features, renders it impracticable to allow the anatomical or even functional divisions of the canal to be a basis for classification. Catarrh originating in the vagina may soon spread to the uterus, and the disease starting in the uterus, if it does not actually involve the mucous membrane of the outermost canal, mingles its discharge with that from the healthy vagina. As a matter of fact, gynæcological catarrh is a composite discharge, being made up of the secretions from the entire genital canal, that special element predominating which represents the most active pathological focus.

It is, therefore, obvious that the most practical demonstration of gynæcological catarrh will consider the character of the discharge according to its various modifications which

depend upon the specific cause, length of duration, extent of, and degree of tissue involvement.

The following classification will be adopted:

A. SIMPLE CATARRH.

Usually involving only the mucous membrane of the vagina and vulva, and represented by an increased secretion of mucus that contains few cellular elements.

B. MUCOPURULENT CATARRH (LEUCORRHŒA).

An outgrowth of simple catarrh, marking, however, a distinct pathological process, with more or less destruction of tissue and an admixture of pus cells.

C. PURULENT CATARRH.

This may be the third stage of simple catarrh, the mucous character disappearing in favor of the more intense bactericidal infection, or, though more rarely, it may arise as a primary disease from the direct invasion of pyogenic cocci. The discharge is almost pure pus, the cast off epithelial cells mingling with cast off purulent exudation.

D. Sanguinous Catarrh.

The discharge is characterized by a predominating admixture of blood cells, and indicates a distinct involvement of the deeper structures of the mucous membrane, and a degree of inflammation in which the integrity of the capillary wall is attacked, allowing transudation of red blood corpuscles.

A further division into acute and chronic catarrh is possible, but any one of the above varieties may be either acute or chronic, and, therefore, such a separation serves no well defined purpose. In the matter of treatment the history of the disease that has lasted over a considerable length of time presupposes more or less profound systemic involvement, and as such will receive special treatment directed to the chronic condition.

A. Simple Gynæcological Catarrh.

This occurs most frequently in children and young adults. It is usually confined to the vulva and vagina, rarely involving the uterus. The process consists in an increase of the functional activity of the mucous cells

and glands, resulting in an undue secretion and discharge of mucus. Goblet cells, either intact or ruptured, are found in the discharge, and epithelial cells in various stages of transition into mucus cells. The discharge is a glairy transparent mucus, unless the vulvar glands are involved, when it becomes mixed with secretion from the sebaceous glands of the vulva and the glands of Bartholin, rendering the discharge opaque, and sometimes cheesy.

Catarrh of this variety is not incompatible with a feeble acid reaction of the vaginal secretion, but a more advanced and pronounced degree of simple catarrh is accompanied with a neutral or alkaline reaction. Such discharges are irritating, and frequently give rise to troublesome vulvitis and vaginitis. In infants this is not uncommon, for with them and the new born the normal reaction is neutral. This fact may explain their susceptibility to vaginal catarrh; certain it is that the absence of acidity favors the invasion of micro-organisms in these cases.

The important part played by measles and scarlet fever in causing genital catarrh in

little girls has been referred to. I believe this to be more common than is generally admitted. The pruritus attending this variety of catarrh in children is sometimes intense, and may be the first symptom to attract attention, for the discharge is not usually very marked.

In simple catarrh of infants and children, examination shows the vulva to be inflamed and swollen, the redness extending into the vagina. Urination is frequent and painful, and the patient is in constant motion, rubbing the parts together, or seeking to relieve the itching by scratching. The habit of masturbation may have its origin in this intense irritation of the genital organs, and the means taken to obtain relief.

From the unrest caused by local irritation and the erethism of erectile tissue that follows, the general health of these little patients soon suffers. They become irritable, nervous and easily excited. Children who have always been most even tempered, from very trifling causes, fly into a violent passion. They are restless at night, waking at short intervals. Their digestion suffers, the

tongue is coated, and there is obstinate constipation. So marked are these symptoms of some genital irritation that I always think of catarrh when such a case is presented, and by physical examination assure myself of the condition of the vulva and vagina.

It is useless and a detriment to our healing art to attempt to cure these cases or any case of gynæcological catarrh with internal medicine alone. As it is a local manifestation, local applications will form an indispensable part of any rational treatment, even in infants and young children. The disease has a microbic origin, and these organisms must be attacked *in situ,* removed and their multiplication arrested, and their environment made unfavorable for further development. Internal remedies will dynamically restore the health of the tissues and render them unfit to harbor or generate microbic life. The simple gynæcological catarrh of infants seldom becomes mucopurulent unless to it is added a specific infection.

The indications for the local treatment of the catarrh of infants and young girls before the advent of puberty—after that period

questions connected with the development of the entire reproductive system will merit consideration—are, first, to destroy the causative micro-organisms, and second, to allay irritation, which, in its turn, will control inflammation.

In simple genital catarrh the infection is a mild one, and will usually yield to mild bactericides. Even though it has passed the acute stage and become chronic, the chronicity is not due to an increase of virulence, but to a vicious habit of cell multiplication and the extravagant elaboration of mucus brought about by infecting bodies. As a rule, the catarrhal process does not extend beyond the external os. The lower segment of the uterus, which is proportionally longer than the fundus until puberty, remains closed with its mucous plug.

Boracic acid usually suffices for a cure. The method of its use, however, is important. A douche, or lotion, in the proportion of one drachm in one pint of sterile water at a temperature not above 100 meets the requirements for a solution, but sometimes for the irritation of the vulva, especially if it is

eczematous, an ointment is required. For this purpose I use Boracic acid ointment, U. S. P., or the Glycerite of starch; either one of which will be found most soothing to the irritated surface, and will reduce the brawny condition of the labia. If there is much swelling and denudation of epithelium the following will be very efficacious:

℞. Calomel ..... 1 gramme.
Tannin ... . 2 grammes.
Glycerite of starch. 20 grammes.

This may be smeared over the parts, or applied on strips of old sterilized linen, which I find very useful in gynæcological practice.

Or a pencil-shaped suppository of the following may be introduced between the labia:

℞. Salol .....grs. 1ss.
Cocoa butter .....gr. xv.
M.

The use of the vaginal douche in these cases becomes a matter for serious consideration. It goes without saying that it should never be used in children if it can possibly be avoided, and in many cases it is not neces-

sary, for the pathological process when originating in the vulva frequently does not invade the vagina, and can be treated by observing strict cleanliness, and bathing with a Boracic acid lotion. The parts can be cleansed by directing a gentle stream of Boracic solution against them, going well up to the hymen. It is of the utmost importance to remove all discharge from every crease and fold, and to bring the medication in contact with the entire mucous surfaces. After drying, Boracic ointment or Glycerite of starch may be applied if necessary. I generally give the preference to the Glycerite of starch.

When the vagina is involved it may become advisable to use a douche. With care this can be done without mutilation unless the hymen is almost imperforate. This condition of the hymen by interfering with drainage may intensify the local process, and require to be separately dealt with. I have met several such instances in little girls. The opening in the hymen would scarcely admit a small probe, and the pent up catarrhal discharge encouraged conditions favorable for its continuance and induced further

mucoid degeneration. An enlargement of the opening in the hymen, and a few Boracic acid douches, sometimes Potassium permanganate 1/2000, will be of more service, usually suffice to effect a cure. In one of the instances I recall the child was eight years old. The catarrh had spread from the vulva into the vagina. All of the structures involved were in a state of intense irritation. The discharge was distinctly alkaline, and very offensive. The opening in the hymen was difficult to find, and was finally discovered by a drop of mucus that oozed into the vagina. An enlargement of the opening and Boracic acid douches promptly restored the mucous membrane to health.

Children of this age, or older, should never be allowed to use the douche themselves; it should always be given by the mother, nurse, or some adult member of the family. The physician should carefully instruct the person who is to carry out his orders, and if the entire matter is treated in a perfectly simple matter of fact manner the patient's modesty will not be offended nor will her mind dwell unduly upon the subject.

Simple gynæcological catarrh in adults is the most frequent form of catarrh encountered by the gynæcologist, and may vary in quantity from a scarcely increased physiological discharge to a profuse debilitating flow. The character of the discharge remains the same, but the surfaces involved are most extensive, the morbid processes spreading to the mucosa covering the portio-vaginalis, and even to the cervical endometrium. This variety of gynæcological catarrh is sometimes called leucorrhœa—fluors alba—for it may be milky white from the admixture of cast off epithelial cells.

In virgins it is usually associated with displacement of the uterus, congestion of the ovaries, or general pelvic congestion; in married women it may be connected with defective sexual hygiene, or when a part of a multipara's history, with subinvolution of the uterus. Any cause that induces chronic congestion of the pelvic organs and structures may be looked upon as most potent in the etiology of simple gynæcological catarrh.

The treatment advocated for simple catarrh in infants and young girls will also be

found useful for the disease in adults. Pathologically, there is little difference between the two manifestations of catarrh. A Boracic acid douche and ointment, or an ointment made with the glycerite of starch have for pruritus their well-defined places as curative agents, but with the adult the vaginal douche and direct local medication necessarily fill a more prominent place than in children. When the inflammation subsides somewhat an astringent solution is of service, 1 to 200 of lead acetate, or 1 in 40 solution of glycerite of tannin.

The method of giving a vaginal douche will vary according as it is desired to retain the medication for a length of time in contact with the mucous membrane, or the object is for cleansing purposes chiefly. For simple uncomplicated catarrh the latter will suffice, and, with this in view, the following technique will be found convenient, and to yield satisfactory results:

The patient will sit on a douche pan, or, better still, on a commode with the thighs well separated. A reclining position retains the solution in the vagina, and does not per-

mit thorough cleansing of the canal. Therefore, I have my patients sit while irrigating the vulva and when taking a douche.

There should not be a family douche bag, each patient should have her own instrument reserved for her exclusive use. This must be insisted upon, for the custom of having one bag with several tips cannot be too strongly condemned.

Before used, the bag and tips should be cleansed and boiled, and, thereafter when not in use, kept in a solution of boracic acid. The ordinary hard rubber tip is convenient in size and shape, but I prefer one made of glass. Any soiling can then be easily detected. This is not true of the hard rubber tips. These, however, can be made perfectly clean, and with the aid of boiling water, or an alcohol flame, be moulded to any desired shape. Before heating the tip in an alcohol flame it should be smeared with vaseline to prevent burning the rubber. Hard rubber tips have one advantage over glass, they do not break easily, and no risk is run of injuring the patient while taking the douche. I have known several quite severe accidents

to occur by the glass tip breaking when in the vagina.

Little force is necessary for the stream of water. The douche bag should be hung about on a level with the patient's head. If the solution when poured in the bag is 110° F., it will be the proper temperature when it reaches the body. I will here enter my protest against the high temperature douche unless as a continuous irrigation in pelvic cellulitis. The temporary relief afforded by the heat induces a more or less permanent relaxation of tissues, which eventually accentuates the very conditions it is used to correct. As a therapeutic agent in the treatment of catarrh the vaginal douche should not be above 105° F.

To minimize the danger of adding to vaginal infection the external parts should be douched before the vagina. Ordinarily two quarts of water will be sufficient to cleanse both the vulva and the vagina, but if the catarrh is very tenacious it may be necessary to first use a pint of bicarbonate of soda solution, soda one ounce, water one pint, to cut the discharge, and permit the boracic acid to come in contact with the mucous membrane.

If there is sufficient vulvitis to necessitate special treatment, the parts should first be thoroughly dried, and then one of the glycerites I have mentioned applied, either as a smear or on pieces of linen laid between the labia.

It is desirable to avoid retention of the irritating discharges, and to prevent them from remaining in contact with the vulva, also to avoid the use of heat producing vulvar pads. At the same time the catarrh may be so profuse as to require a protective dressing. The rule for dressing should be as light an antiseptic pad as possible, renewed as often as necessary. One or two layers of absorbent cotton wrapped in sterile gauze will answer the purpose, and before saturated it should be changed.

In case the discharge is corrosive, and this will be increased by the urine passing over the sensitive parts, a stiff boracic acid ointment will afford relief. Stearate of zinc may also be dusted over the vulvar pad.

I have advocated especially a boracic acid douche. This has in my hands been the most generally useful in the treatment of simple

catarrh. It allays the itching of vaginismus, and at the same time furnishes the required bactericide. Occasionally I add glycerine in the proportion of one ounce to a quart of water, or when the mucous membrane is intensely congested I inject an ounce of sterile glycerine into the vagina after the douche has been given. The patient should then be kept in the recumbent position to retain the glycerine in the canal as long as possible. An availment of the hygroscopic action of glycerine will do much towards the success of any subsequent local treatment that may be instituted. Some cases may call for a carbolic acid douche, others for bichloride of mercury, still others for creoline, but in my hands boracic acid has been so entirely satisfactory in the treatment of simple catarrh that I have come to rely upon it, and to reserve the more powerful germicides for the severer adult cases, in whom there is liable to be a mixed infection.

In the general treatment of gynæcological catarrh the hygiene of the patient must be carefully regulated. Digestion should receive especial attention, and the several func-

tions of elimination encouraged to their full activity. Any tendency to constipation must be overcome by the use of salines, in mild cases preferably the phosphate of soda; in more chronic cases it may be necessary to resort to Rubinat condal, or Hunyadi water. Cascara is useful for children. The establishment of a cathartic habit is greatly to be deprecated, but it is useless to attempt to cure a torpid intestinal canal with dynamic medicines while it remains mechanically full. Remove the accumulation, which from its very presence paralyzes the muscular wall, establish the habit of forcing the fæcal mass onward, and the cause of the trouble may be reached with the indicated remedy. Constipation in children and young girls is attended if not caused by packing of the sigmoid colon with fæces. The rectum also becomes filled and sluggish. This operates mechanically, favoring congestion of the pelvic organs, the very condition it is desired to overcome.

The remedies for simple gynæcological catarrh will cover a wide range of drugs, but the selection will usually be made from among a comparatively small number, for in

seeking the similimum a few symptoms will serve as a basis upon which to build each therapeutic structure, these are the guiding symptoms of the drug, and the essential symptoms of the disease. Adapting one to the other makes a perfect prescription. The genius of the drug fitted to the genius of the malady constitutes scientific therapeutics.

In the treatment of the simple catarrh of children and young girls, I have generally obtained the best results from Merc. jod. 2, or Sepia, Calcarea carb., or Phosphorus, the latter, if there is much pruritus and local irritation, will be thought of. The scrofulous diathesis suggests Bromine or Iodine, either one of which remedies will bear careful study in these cases. When there is evident sexual excitement, this may manifest itself in a variety of ways, no remedy equals Origanum. Caulophyllum is also useful when the discharge is very profuse and acrid. When there is reason to associate the genital catarrh with suppression of exanthemata, or to regard it as one of the sequelæ, Phosphoric acid will be of service. Baryta carb. has been of service in the treatment of simple ca-

tarrh in young women who are always tired. Sepia when there is pronounced misplacement of the uterus. Frequently catarrh in young women is associated with some disappointment connected with the affections, disappointed love. Here Calcarea phos. will render excellent service. Ambitious students are often the subjects of gynæcological catarrh; we will think of Gelsemium. Helonias will cure many cases of simple catarrh in women enervated from luxury. The pelvic structures are lax and soft. Nervous exhaustion, so frequently an accompaniment of genital catarrh, always suggested that great tissue remedy, Kali phos. Pulsatilla, Lilium tig. and a remedy usually more frequently associated with other forms of catarrh, Thuja, I have found useful in the simple variety, especially when there is much local irritation. In connection with a douche of this same remedy, one drachm in a quart of water, it will yield most satisfactory results.

B. Mucopurulent Catarrh.

Simple catarrh may continue through all phases of life, it may become chronic even

before puberty, and persist without material changes during menstrual life in unmarried women. More frequently, however, the vaginitis that is carried over into the reproductive period becomes mucopurulent by the addition of pus cells, the micro-organisms being pyogenic, and the vaginitis representing a more profound tissue involvement.

With the functional development of the upper part of the genital canal, the uterus, and the Fallopian tubes, the catarrhal process extends, and to the vaginal catarrh prior to puberty is added catarrh of the uterus. The functional activity that attends reproductive life, the normal increase in glandular development and the consequent changes in the lining epithelium of the genital canal that is a part of each menstruation, introduce factors until then not reckoned with, factors that so dominate the gynæcological catarrh of adolescence and married life as to almost warrant their consideration as a separate class. But the divisions according to age are broken down in view of the fact that pathologically identical gynæcological discharges may occur at any period of life irrespective of social conditions.

With the advent of reproductive life there is an augmented activity of the genital mucosa and a corresponding increase of discharge, this functionating continuing under the regulation of physiological requirements until the folding up process is completed. The secretion of mucus varies greatly in individuals, and within limits is not incompatible with health. That is to say, a discharge considered normal during adolescence and maturity would, with propriety, be looked upon as abnormal if occurring in childhood, a veritable catarrh even though the character of the discharge continues unchanged and is physiological in its constituents. When, however, the simple catarrh of childhood continues into menstrual life, or develops after puberty, it is frequently of the mucopurulent variety, and, therefore, while this catarrh may occur at any period of life it is the form most frequently associated with maturity.

Mucopurulent catarrh is the expression of more than a simple increase of the mucus forming function. It represents a true vaginitis, and pathologicaly is allied to inflam-

mation of the deeper structures of the genital canal. The portio-vaginalis is always involved, but as long as the morbid process is confined to the mucus forming epithelia, and mucus predominates in the discharge, the cervical canal is not invaded above the external uterine os.

Beyond a slight degree of congestion the vulva is not usually affected unless through neglect of cleanliness; the parts are kept constantly bathed in the discharge, which, unless removed frequently, may be irritating and corrosive. The vagina, however, is highly congested, and the epithelial cells and glands are excited to an unusual degree of activity, mucus being secreted in enormous quantities.

The pus cells which give a purulent character to the discharge come from the portio-vaginalis and the mucous membrane covering the external os, and are generated by structural change in these parts of the canal, the extent of which determines the relative proportion of pus cells in the discharge.

A mucopurulent gynæcological catarrh, therefore, is usually a simple mucous catarrh to which is added a characteristic pa-

thology of the upper part of the vagina and portio-vaginalis, the discharges from which give it its characteristic features. Hence in considering this variety of catarrh attention will appropriately be directed more especially to these parts of the genital canal.

So frequently is erosion of the uterine os, and hyperplasia of its glandular structures associated with mucopurulent catarrh that the propriety of regarding these conditions as essential parts of a whole admits of little question.

Erosion of the cervix is not an ulceration. There is no loss of tissue; on the contrary we find an increase of tissues, the condition being more accurately described as a sessile adenoma. The process centers in the glands of the cervix, which are normally complicated, and much larger than those of the body of the uterus. The red patches on the cervix from which pus exudes are masses of gland acini, and not only occupy the surface of the cervix but extend deeply into the underneath tissues. The glandular construction is greatly exaggerated, with wide convolutions and dilatations, the secreting parts increasing at

the expense of the stroma into which they project.

The mucous membrane covering the segment of the uterus that projects into the vagina in acute cases is highly congested, the superficial vessels being only lightly covered with epithelium. In chronic cases the mucosa appears almost purple from blood stasis, a condition that may spread to the vaginal fornices. The cervical endometrium is swollen and pouting from the external os, ectropium, and the normal rugæ become accentuated. All the structures involved are more or less œdematous, the portio-vaginalis appearing as a tumefaction that occupies the upper part of the vagina.

Though the mucous membrane is extremely red, resembling a piece of raw meat, one is surprised to find upon attempting to cleanse the surface that it does not bleed readily. As a matter of fact, the apparently denuded surfaces are covered with a thin layer of squamous epithelium through which the dilated vessels show distinctly. It is characteristic of erosion of the cervix that the line of demarcation between the morbid and the

healthy processes is very clearly defined, for while there is intense congestion of the portio-vaginalis where the glandular hyperplasia ends is always clearly marked. This feature does not belong to any other benign growth, and disappears as the pathology becomes more complex.

Save in advanced cases the uteri os is not open. It remains closed with a plug of clear tenacious mucus which serves to guard the interior of the uterus against the invasion of micro-organisms by way of the vagina. This plug can be drawn out in a long string, but is dislodged with difficulty.

Mucopurulent catarrh may be acute or chronic, more frequently the latter, as the acute condition that induces the formation of pus causes a predominance of these elements from the outset. Mucopurulent gynæcological catarrh, therefore, is usually a chronic disease. It belongs to adult life more especially, and is connected with the period of sexual activity. Conditions of life are mainly responsible for mucopurulent catarrh, for it is most frequent in married life, and in those who have borne children. Elimi-

nating gonorrhœa, which for reasons already stated will not be discussed here, the consequences of child-bearing are the most prolific causes. These are, imperfect involution of the uterus, quite as important the injuries of the lower segment of the uterus and of the vaginal walls that are incident to parturition. These injuries cannot always be considered lacerations, which understanding is usually reserved for tears involving the several structures of the cervix and perineum, for there is no doubt that in some instances in which the cervix and vagina appear not to be injured, indeed in which the integrity of their muscular structures remains, the mucosa has suffered some slight and overlooked trauma, is torn, and offers an entrance for micro-organisms and a point for delayed repair. Endocervicitis follows. The cervical glands become enlarged, their function perverted, and almost as a continuation of the puerperium there is an erosion of the cervix, and an infection of the vagina. When the cervix is lacerated the steps to the development of erosion are more rapidly taken, and the end more quickly reached. There is also liable

to be an arrest of the process of uterine involution as a consequence of injury, tissue changes, and local interference with nutrition.

Women who have borne children and those who employ means to prevent conception, or to arrest gestation, are also frequent subjects of mucopurulent catarrh. The exciting causes are either mechanical injury to the cervix, or an irregular congestion of the uterus without the means nature provides for the emptying of the surcharged vessels. The results are the same, though in less degree. A heavy uterus, endometritis, endocervicitis, glandular hyperplasia, infection, and lastly the formation of pus.

But mucopurulent catarrh occurs in unmarried women. The pathology is similar, erosion of the cervix from which pus is derived, and excessive secretion of mucus by the vaginal epithelium and glands. Such cases are not usual, but we do find well developed erosion of the cervix in virgins, as we find congenital laceration of the cervix from defective fusion of the uterine segments. Mucopurulent catarrh in virgins is

associated with malposition of the uterus, most frequently retroflexion, and with congestion of the pelvic organs. Retroflexion of the uterus is a potent factor in causing congestion and swelling of the cervical endometrium and the cervical glands, thus through successive stages removing the natural protection against invasion of the cervix by micro-organisms.

Certain occupations followed by women conduce to the same end. Among these, standing long hours, as until quite recently required of shop girls, is most prolific in inducing pelvic congestion, uterine displacements and perverted function of the genital mucosa. The fatigues incident to social life in our large cities, and its unnatural excitements furnish their quota to the local conditions that favor bacterial infection of the vagina and uterus. In other words, the vagina being naturally a self-cleansing and aseptic canal becomes through unnatural conditions non-resistant to infection. The uterus and pelvic organs also suffer from similar unhygienic conditions, and one of the results is gynæcological catarrh of the muco-purulent variety.

Mucopurulent catarrh is among the most common of gynæcic diseases, but because women, and especially married women, are accustomed to more or less vaginal discharge, the disease has frequently become quite well established before brought to the specialist's attention, and even then, unless its importance is almost unduly exaggerated, it is difficult to impress patients with the necessity for persistent and systematic treatment.

The discharge of mucopurulent catarrh consists of mucus containing pus cells, some broken down epithelial cells and incompletely emptied goblet cells. Because of the alterations that may take place in the secretion from the glands, according to the length of time it lies in the vagina, and also according as the reaction is acid, alkaline or neutral, the gross character of mucopurulent catarrh will vary considerably.

Typical mucopurulent catarrh is yellowish in appearance, with the predominance of pus it assumes a creamy consistence, and when the cervical canal is involved there will be strings of clear, transparent mucus mixed with the opaque material. Occasionally

there is a slight tinging with blood. This calls for a rigid examination, aware as we are of its possible grave pathological significance. Occurring as a feature of an eroded cervix from which it emanates, it may mean nothing more than a temporarily increased local congestion, but the true state of the case should be ascertained, and the source and cause of the bleeding determined without delay.

It is characteristic of a mucopurulent discharge to harden upon exposure to the air; we, therefore, find yellow crusts on the external parts where the matter has been allowed to accumulate. As a rule, these crusts are not difficult to remove and will not be present when systematic local treatment is carried out.

Mucopurulent catarrh is generally aggravated a few days before and a few days following menstruation, the period of least discharge being the mid-month. It is also increased during the first months of pregnancy—if present before conception—when it becomes a most annoying symptom. After the third month the discharge is generally

reduced in quantity until just prior to confinement, when it is liable to become quite profuse again. It may, however, continue during the entire period of gestation.

The reaction of mucopurulent catarrh is always alkaline, the vagina having lost its protective acidity. When strongly alkaline the discharge is corrosive and will injure any fabrics with which it comes in contact. A patient's linen is in this way frequently quite destroyed.

The clinical picture of gynæcological mucopurulent catarrh will not be complete without considering the constitutional symptoms. Those that accompany this form of catarrh are varied. One of the most common is a persistent backache. This is a dull, wearisome pain below the waist line. It is aggravated by standing, but is never wholly absent save during menstruation, when there may be relief.

Digestion suffers, and the appetite is liable to be fickle, almost to the unnatural cravings of gestation. Constipation is always present, and is due to a torpid condition of the rectum. The patient complains of a dull

occipital headache, with which she wakens in the morning, continuing with more or less severity during the day. As general nutrition suffers the skin becomes dry and anæmic, and on the face and back acne may develop. The patient is always tired, she becomes exhausted after slight exertion and does not readily recuperate. This picture is an extreme one, but in varying degree belongs to every case of mucopurulent catarrh.

The cure of mucopurulent catarrh can be effected only with the faithful co-operation of the patient, and after persistent treatment, which to be successful must include careful individualization of symptoms and of pathological conditions. The treatment is naturally divided into local and constitutional.

The local treatment will be the use of the douche, the medicated tampon, direct applications to the eroded cervix and the vagina, and cervical curettage. A lacerated cervix must, of course, be repaired, for without trachelorrhaphy the erosion cannot be cured. Any malposition of the uterus that exists will also be corrected, for until this is done

the circulation of the pelvis cannot be restored. As the infection is from pus-forming cocci, unless in the beginning, Boracic acid will not control the disease. More active bactericides are necessary.

I generally make my selection from among three drugs, Bichloride of mercury, Iodine and Carbolic acid. My routine practice, subject, however, to variations, is the following: At the first examination—Cusco's speculum affords the best exposure—the mucous membrane is thoroughly cleansed with a solution of Bicarbonate of soda, followed by Carbolic acid. For this and for all cleansing of the vagina I use the selected medicament in the form of a spray with compressed air. The force of the spray easily reaches parts that a douche cannot touch. Bicarbonate of soda cuts tenacious mucus, and Carbolic acid possesses a soothing as well as an antiseptic action.

The eroded cervix is then lightly painted with Carbolic acid 95 per cent., its action being antagonized with alcohol. The Carbolic acid follows the sulci between the hypertrophied glands and attacking necrosed

matter dislodges it, to be subsequently mixed with the discharge. The patient is directed to take a Carbolic douche 1/60, each night and morning, and to return for treatment at the end of three days. By that time the slough on the cervix caused by the acid application has been cast off, and the eroded surfaces are ready for further treatment. The discharge will not be diminished, but it will be thicker, and more creamy. The eroded surface will be found bathed in pus, but this is easily removed, and the underneath structures appear more healthy.

This treatment is repeated at intervals of three days, that is, two days intervene between the treatments, for generally about two weeks, or until the first menstruation. If there is much congestion of the uterus with enlargement and swelling of the cervix, it may be advisable to use a tampon saturated with boroglyceride, but in the presence of a profuse discharge from the cervix I avoid even this light obstruction of the vagina, seeking to promote drainage rather than to retard it.

If the vaginal walls are relaxed an as-

tringent douche will replace the Carbolic acid. Powdered Sulphate of copper and Alum, equal parts, of which half a teaspoonful is added to two quarts of water, will serve a useful purpose. As a rule, however, in what I consider the preliminary treatment I depend upon Carbolic acid for both douche and topical application to the eroded surfaces. This drug has a most beneficial effect upon the mucous membrane in the early stages of mucopurulent catarrh, or when the case comes to us from another surgeon, and single-handed will usually prepare the diseased structures for subsequent and more strictly curative treatment.

Following Carbolic acid, my chief reliance is placed upon Iodine. I use it for spraying the vagina, and apply it to the pus secreting surfaces. I prefer Churchill's tincture, for in addition to the counter-irritant action of Iodine there is the well known softening action of Iodide of potassium on inflammatory deposits and exudates. For the spray I use Iodine in the proportion of one drachm in a pint of water, to cleanse the cervix; this should always be done. I paint the eroded

surface with the tincture. As the internal os is usually closed, the Iodine may be carried well into the cervical canal with little fear of invading the body of the uterus.

At this stage the vaginal tampon will assist in restoring the eroded cervix, and through its hygroscopic action, glycerine will greatly relieve congestion of the pelvic structures. I still rely upon Iodine. Glycerine will take up about 1.90 parts of Iodine crystals, and for the purpose of medicating tampons I find it convenient to keep a bottle of glycerine containing iodine crystals in my office. After standing twenty-four hours the saturation is complete, and the glycerine solution may be used with definite knowledge of its strength. Half a drachm of this solution is added freshly to enough glycerine to drench the tampon, which is then carried up against the cervix.

This treatment must be repeated at first twice a week, later once a week will be sufficient. Iodine is exquisitely homœopathic to the glandular hyperplasia, it is a most efficient bactericide, and has a marked predilection for necrotic tissue, inducing its separation without injury to the healthy structures.

In mucopurulent catarrh I formerly used Ichthyol tampons, but my results have been more satisfactory from the Iodine treatment, and the preparation of the crystals in glycerine I prefer to that made with the tincture.

It may become necessary to curette the cervical endometrium and to remove the glandular hyperplasia of the os, and portio-vaginalis, but such a requirement will be unusual for mucopurulent catarrh. When curetting is necessary the case has almost certainly progressed to a more decided purulent form—purulent catarrh. Further reference will be made to the operative treatment when discussing this variety of gynæcological catarrh.

The constitutional treatment of mucopurulent catarrh is a broad subject, for it will embrace the entire life history of the patient, and may necessitate consulting a vast number of remedies before the similimum is found.

Every case of mucopurulent catarrh should be examined vaginally, for it goes without saying that the cause must be re-

moved, and this can be determined only by assuring ourselves of the condition of the pelvic organs. The position and size of the uterus are of the utmost importance. Any misplacement must be corrected, and if there is subinvolution the treatment will be directed to its cure. Any underlying dyscrasia will receive careful attention, faulty nutrition which is at the bottom of non-resistance to the invasion of micro-organisms will be overcome by regulating the diet and promoting assimilation.

There is almost always obstinate constipation, a condition of torpor of the lower bowels caused, as is frequently the case with women, by neglect to respond to the demand to stool. It will be necessary to empty the rectum, after which diet, exercise, occasional Cascara and Maltine, A. S. B. tablets, or Merc. dulcis if the liver seems inactive, or Alumina when the rectum has lost its power, may be required. A course of Rubinat condal, or Hunyadi water, or the phosphate of soda, as already suggested, may be necessary. By this I mean, giving a small dose of one of these salines daily until the intestinal

canal is empty. One tablespoonful of the cathartic in a glass of warm water before breakfast, will, unless in very chronic cases, be all that is required. No cathartic should be continued too long, or until the habit of its use is established. Constipation is one of the most obstinate gynæcological complications with which we have to deal, and may tax every resource within our knowledge before it is cured, but of one thing we may be certain, a pelvic pathology that has to do with portal congestion cannot be removed as long as this lasts. Not only does the impaction, for such it becomes, interfere with circulation through the pelvic vessels, but there is in addition an actual toxæmia induced by absorption from the effete matter that is retained in the intestines. Much of the languor and exhaustion attending these cases are undoubtedly due to this cause. Establishing a regular daily habit of going to stool, even in the absence of desire, will frequently accomplish a great deal towards overcoming intestinal inaction, and will induce an onward movement of the fæcal mass. Constipation is not as prevalent among

women in the more humble walks of life, save those employed in shops and factories, as it is among the well-to-do or the idle rich. A large proportion of shop women suffer from catarrh, usually mucopurulent, and they are almost always constipated. The problem of treatment and cure in these cases of gynæcological catarrh is well-night insuperable. Their very circumstances relegate them to dispensary care, or to dispensary physicians who will attend them in the evening. This is the only time they have for recreation, and, apart from the actual cost entailed, they cannot be impressed with the relative importance of being cured of their catarrh. As a rule, treatment will consist in directing domicillary douches, not always taken with antiseptic precautions, and hygienic prescriptions, regular hours, plain food, and attention to regular evacuations of the bowels.

With the idle rich, whose life is a round of pernicious enjoyment, the problem of treatment is only a little less difficult. They will be treated—according to their own fancy—and they will take medicine, but

their irregular hours, rich and highly seasoned food; their immoderate use of sweets, their increasing use of alcohol, without the advantage that men have of out of door exercise to somewhat counteract its baneful effects, all tend to congest the liver, and induce constipation. Their entire hygiene must be corrected if they would be cured. Early rising, early retiring. Late suppers must be prohibited, sweets save in moderation forbidden. Tea and coffee, sparingly taken, I do not object to unless there is some counterindication for their use. Daily exercise unless the condition of the pelvic organs forbids, and regular attention to the bowel function. Shortly after breakfast is the best time to cultivate this habit, and nothing should interfere with the hour fixed for going to stool.

The intelligent well to do patients furnish the most promising subjects for treatment. They value health more than amusement, and will be willing to give up the latter with the prospect of obtaining the former. The principles underlying all hygienic directions are, to exclude as much as possible luxuries

that overburden the eliminating organs, and store up in the system the effete materials of metabolism, and to inculcate the ideas of regular living.

The sexual hygiene of women may have to do with constitutional conditions that predispose to gynæcological catarrh, and with the local conditions that make for its continuance. Excessive indulgence, or unsatisfied desire—more frequent in women than is generally acknowledged—act equally in causing congestion of the lower segment of the uterus—it will be remembered that this is really an erectile organ—with consequent endometritis. The various means taken to prevent conception, both passive and active, undermine the constitution of women, and predispose to the below par state that is so frequently associated with mucopurulent catarrh of the genital canal. I do not wish to convey the impression that mucopurulent catarrh is the chief symptom of such a constitutional condition, but I do assert that it is one of the symptoms, and is not conceivably present under conditions of well being.

While it may be necessary to consult the entire materia medica to find the similimum for a given case of mucopurulent catarrh, a few remedies have proved of value. For fuller indications reference may be made to Part IV of this Treatise.

Pulsatilla, Sepia, Aletris, Hydrastis, the latter from its certain action on the uterine musculature makes it especially valuable when there is subinvolution; the Potash salts, especially Bichromate and Chlorate. Iodine is of a very wide application, internally as well as locally, especially when there is an underlying dyscrasia. It is especially applicable to delicate women who are easily exhausted, brunettes with dark, lifeless looking skin. All the discharges are corrosive, and there is a concomitant marked congestion of the ovaries. Kreosote will be indicated when the mucopurulent discharge is offensive, and very irritating, causing swelling, itching and excoriation of the parts with which it comes in contact. The portio-vaginalis is purple and indurated, and the enlarged glandular masses form ridges that project beyond the surface. Sepia is of fre-

quent use in this form of catarrh, especially when there is a general relaxation of the pelvic structures. The uterine supports have given away, the uterus is heavy and prolapsed, the condition being one of atony, frequently following confinement. The patients are feeble and debilitated, with dark complexion, fine skin, and extremely sensative to impressions. The indications for Sepia are more upon constitutional than local symptoms. The general condition of the patient greatly influences the choice of this remedy.

But while there are many old and tried remedies that have done, and will continue to do, yoeman's service, I have come to place much reliance on the tissue remedies for the treatment of mucopurulent gynæcological catarrh, and frequently make my selection from among them during the course of treatment. They are indicated by the pathology, the constitution, and the subjective as well as the objective symptoms, and more frequently, I think, than any other class of remedies, cover the complete picture of the disease.

The lime salts stand out prominently. Calcarea phosphorica will be useful as a general tonic in women who have borne children too rapidly, and, who, in consequence, suffer from exhausted vitality. It is also useful in senile conditions, especially the vaginal pruritus of old women. Calcarea sulphurica is possibly more useful in purulent catarrh than in the mucopurulent variety, but its action upon glandular structures and mucous membranes is so marked that it may be called for here. When the discharge contains lumps of pus mixed with mucus, I always think of Cal. sulph. Kali phosphoricum renders valuable aid in the treatment of mucopurulent catarrh. Not, I believe, because of its direct action upon the structures involved in the morbid process, but as a general nerve restorer. If the catarrh has existed any length of time the patient suffers from nerve exhaustion, and will become before long a subject of some degree of neurasthenia. I know of no remedy that fits these cases as perfectly as Kali phos. It is the great nourisher of nerves, and, by accomplishing this, aids assimilation and the reconstruction of

tissues. With this object in view, I frequently give Kali phos. in hot water before eating, at the same time that I exhibit the remedy that more closely suits the local pathology, and its attendant symptoms. I rarely now carry through a case of chronic mucopurulent catarrh, or for that matter any long-lasting gynæcological case that has induced exhaustion, without the aid of Kali phos. Kali sulphuricum exerts such a powerful action upon the epithelial covering of mucous membranes that we naturally consider this salt in relation to catarrh. I frequently use it when the discharge contains large quantities of epithelial cells—Kali sulph. causes this desquamation—shown clinically by its creamy appearance. The mucous secretion is crowded with cylindrical epithelial cells that have been cast off from the mucosa. Or there may be complete desquamation of the vagina, the epithelium appearing in shreds. Kali sulph. also interferes with the lymphatic system, causing a diminution of the lymph supply. The catarrhal discharge then becomes sticky and stringy. A slimy, yellow-

ish catarrh, containing masses of epithelial cells and lumps of pus, is strongly suggestive of Kali sulphuricum.

C. Purulent Catarrh.

Unless the result of mechanical denudation of the genital canal and acute pyogenic infection, purulent catarrh is frequently a continuation of the mucopurulent variety. More tissues are involved, and the formation of pus quite outweighs and takes the place of the normal mucous secretion. The discharge is pus, the mucous element constituting only an insignificant part of its volume.

We will at the outset avoid the mistake of regarding any flow of pus from the genital canal as a purulent catarrh. A pyosalpinx that discharges through the uterus, a pelvic abscess that empties itself through the vagina, or a purulent uterus, cannot be classed as catarrh, though the discharge contains pus. Any one or all of these may coexist with purulent catarrh, and will, then, as the more serious pathology, demand special treatment, but, as already pointed out, catarrh does not embrace such a pathology.

Gynæcological catarrh is essentially a disease of the mucous membranes lining the genital canal, and its various phases arise from the manner in which these tissues are affected, and the extent of their involvement. Much that has been said of mucopurulent catarrh may with equal propriety be told of purulent catarrh, the graduations between the two varieties are slow and difficult to distinguish clinically. But when fully developed, purulent catarrh makes a picture that admits of no doubt in diagnosis.

The entire genital mucosa is usually involved in the morbid process, even the lining of the Fallopian tubes may participate. While functionating goblet cells may exist, their physiological role is imperfectly performed, and is entirely dominated by the process that makes for an excessive desquamation of the epithelial layer, and the extravasation of pus degenerated leucocytes. The vulva, if not a part of the primary infection, soon becomes involved. Vulvitis is present with an increased secretion from Bartholin's glands, and desquamation of epithelium. The vaginal mucous membrane is

congested, swollen and velvety. In places it is entirely denuded of its epithelial covering, these spots appearing a deeper red than the surrounding tissues. Examination shows them to be the principal points from which the pus cells are thrown off.

There is a form of purulent catarrh almost confined to a gonorrhœal infection, or to the puerperium, that is characterized by the development of granules situated in the mucous membrane. These are best demonstrated by the examining finger to which they feel like hard bodies the size of small seeds that are freely movable. I have found such granules, though not in sufficient numbers to constitute a distinct pathological entity, unconnected with gestation, and where the possibility of a gonorrhœal infection could not be entertained. I, therefore, cannot consider them as characteristic of either of these states. Their presence does not seem to be connected with the formation of pus, but is more probably an expression of a mixed infection.

As in mucopurulent catarrh, the portio-vaginalis is actively involved in the morbid

process. There is always an erosion of the cervix, which, from the intensity of the process, may extend well out towards the fornix and break down into an actual ulceration with loss of substance.

Nor does the morbid process stop at the internal os, for as the cervical canal shares in the erosion the cavity of the uterus is early invaded. The endometrium is inflamed—purulent endometritis—and swollen. Its glands in consequence are excited to a pathological activity, and pus corpuscles are formed in abundance to mingle with the unhealthy mucous secretion. The quantity of discharge is sometimes a matter of astonishment leading to the suspicion of some pus cavity existing connected with the body of the uterus through which it seems to discharge.

The endometritis that forms a part of purulent catarrh runs a more or less chronic course, similar to the process in the vagina. There is almost always a laceration of the cervix, and a wide open cervical canal through which the infection takes place, for it will be remembered that the healthy uterus contains no micro-organisms, and will re-

main free from them as long as the cervical canal continues its sentinel duty.

In some cases desquamation of the epithelial covering of the mucosa takes place so rapidly that the vessels are not sufficiently protected, and there is an oozing of blood that tinges the discharge brown. At other times the discharge may become green in color, depending upon decomposition that has taken place, and possibly the presence of some special micro-organism, for purulent catarrh is always a mixed infection.

There is a form of purulent catarrh occurring in old women, associated, if not wholly dependent, upon "senile endometritis,"—senile purulent catarrh. The condition is one of senile degeneration in which connective tissue is in excess of gland tissue, the mucous membrane being replaced by fibrous tissue. The discharge is often bloody, and offensive from decomposition of the contents of the uterus. In such cases the process of atrophy that attacks the uterus has the effect of closing the cervical canal for purposes of drainage, which accounts for the decomposition of the retained discharge.

The vagina does not share actively in these senile changes, though there may be a vaginitis which I am inclined to believe is in some instances an entirely separate disease. When the vagina is involved the canal feels like a fibrous cone very much narrowed above, at the apex of which is situated the cervix uteri. There are sometimes bands of contracting scar tissue encircling the vagina, or a distinct diaphragm may exist through which the finger must pass to reach the os. The vaginal walls are smooth in places, in others there are red elevated spots. The discharge is not profuse, but is characteristically purulent. Care must be exercised to distinguish this senile degeneration from cancer of the uterus and vagina.

As the Fallopian tubes are in health also free from micro-organisms, catarrh of these ducts will be an extension from the uterus. Salpingitis and pyosalpinx may thus become parts of the clinical history of gynæcological purulent catarrh, but a pus tube is a pathological as well as a clinical entity, and is only referred to here as a possible complication of purulent catarrh. The same is true

of tuberculosis of the Fallopian tubes and of the lower parts of the genital canal. The chief clinical symptom may be that of purulent catarrh, but an examination of the discharge will establish or break down the diagnosis of tubercular infection.

Purulent gynæcological catarrh is a disease of adult life; it occurs most frequently in married women, and is almost invariably associated with a lacerated cervix, which we must look upon as the door through which infection takes place. The majority of cases originate in this manner, the vagina and uterus being secondarily invaded. When the uterus is the primary focus of disease, the endometritis of purulent catarrh has passed from the stage of acute infection, puerperal, to the chronic form, which, because of the deep-seated pathology of puerperal infection, will be found especially rebellious to treatment.

Purulent catarrh may follow infection from the use of examining instruments, or even from the examining finger. Simple catarrh, or mucopurulent catarrh, being present, the introduction through whatever

agency of more active pyogenic cocci is sufficient to cause a predominance of pus, and give a purulent character to the discharge. It is not infrequently a result of genital tuberculosis, and may be a sequela of exanthematous diseases.

The clinical course of purulent catarrh tends to a permanent tissue degeneration and progressive structural involvement. There is no likelihood of self-limitation. The positive and ever-present danger of infection of the peritoneum by way of the Fallopian tubes confronts us when the disease is well established. The physiological current of the ova ducts is towards the uterus, but disease so alters the ciliary epithelium that not only may the morbid secretion break through the fimbria, but the uterus by these channels may discharge its contents into the abdominal cavity. Nature, however, frequently comes to our aid in this grave condition, for her tendency is to close the distal openings of the tubes by inflammatory exudate, in advance of the formation of pus.

So constantly is the necessity for plastic reparative work on the uterine cervix a part

of the cure of gynæcological catarrh that this disease may with propriety be classed among surgical affections, and we may be sure that any successful treatment must include some operative procedure.

Each case will be individualized, but certain general rules apply to all, and their systematic observance will greatly aid the treatment. The first indication is to render the genital canal as nearly aseptic as possible, and to restore the field of operation to a state fitted for surgical manipulation. In other words, the vagina must be cleansed, its function of pus formation controlled, and the eroded surfaces of the lacerated cervix brought into a condition in which healing will follow an operation. This will require time and much patience, and we will probably be obliged to ring the changes on a great variety of douches, and applications to the hyperplastic cervical tissues.

As in mucopurulent catarrh, I am very partial to the local use of Iodine. It not only controls suppuration, but it assists in getting rid of the necrotic tissues that so frequently form in the vagina and on the portio-vagi-

nalis. Bichloride of mercury I do not use as much as formerly. If of sufficient strength to be an efficient bactericide it is corrosive, increasing vaginitis and sometimes setting up a troublesome dermatitis. Creoline, one drachm in two quarts of water, will act well in the presence of much swelling, œdema and cellular infiltration especially suggest its use. Hydrastis, fluid extract, is useful when the mucous membrane is highly congested, bleeding easily when touched, and when the purulent discharge contains streaks of blood, indicating the involvement of the walls of the capillary vessels. The same condition is observed on the portio-vaginalis in even more pronounced form, distended vessels being plainly visible through the thin epithelial layer. In such conditions Hydrastis will not fail to bring about improvement. Extract of Witch hazel and Hydrastis, equal parts, of which one drachm is dissolved in one quart of water, is a favorite douche in my practice.

Pruritus, especially in women past the menopause, is sometimes a most trying concomitant of purulent catarrh. It may become so intense as to demand treatment in-

stituted exclusively for its relief, without regard to the aseptic requirements of the case. Sedative douches are indicated before all others. A saturated solution of Boracic acid, or a solution of Liq. plumbi acet., one-half drachm in a pint of water, will frequently give relief, and enable us to use more strictly aseptic douches. When the itching has been intense I have obtained benefit from the application of lint saturated with:

℞. Acid hydrocyan. dil. .....℥ii.
Plumbi acetat. .....scruple ii.
Glycerine .....℥ii.
M.

Another useful douche when pruritus is a marked symptom is Thuja tincture, one drachm in one quart of water. The relief following the use of this douche is sometimes very prompt and permanent.

At the same time we treat the vagina we must prepare the os and portio-vaginalis for operation. Not much can be done in the preparation of the cavity of the uterus for curetting, for any intrauterine treatment will require a widely open cervical canal, insuring

drainage of the cavity. To dilate the canal is in itself an operation, and usually forms the first step of currettage.

In preparing the cervix for operation I use Carbolic acid, Churchill's tincture; or Chromic acid, ten grains in one ounce of water, to destroy hyperplastic glands; or sometimes Acetic acid, one ounce, containing Carbolic acid, twenty drops; or Nitrate of silver, ten grains, water, one ounce. But Iodine still remains the most generally useful application. Its persistent use will more quickly condition the parts for operation than any other drug with which I am familiar.

The above mentioned combination of Acetic acid and Carbolic acid will be of assistance when the hyperæmic, tensely swollen portio-vaginalis and os uteri are smooth and glassy, apparently covered with a shining film. In making this application care must be taken to avoid contact with healthy structures. This can be prevented by holding pledgets of cotton soaked with the solution against the os for a few minutes, the treatment being made through a glass—Ferguson's speculum.

I do not like dusting powders for these cases. Our object is to promote drainage of the surcharged tissues, and powders, with possibly the exception of Calomel, which I occasionally use when there is well marked ulceration with loss of substance, dry the parts and defeat this purpose.

The use of medicated tampons is indispensable, and when properly made and placed will not seriously interfere with drainage from the uteurs.

First, as to the making. As commonly constructed, the vaginal tampon cannot accomplish all that it should, for after it has been in the vagina long enough to become saturated with discharge, it is converted into a shapeless mass that presses unduly upon any structures against which it may lie. A vaginal tampon should above all qualities possess elasticity, and be so fashioned as to readily adapt itself to the conformation of the upper part of the vagina. This elastic quality is scarcely second to that of holding the medication, for it alone, without drug saturation, is of conspicuous assistance in reducing an overweight uterus, and in reliev-

ing pelvic congestion by virtue of holding up the heavy and prolapsed organs.

My directions for making a vaginal tampon are the following: A thin piece of absorbent cotton, about four inches wide and six inches long, is *pulled* from the roll. It should not be cut, for this leaves straight edges that do not blend with the body of the tampon, but should be *pulled away from the roll.* Near one end is placed a small quantity of sterile wool, picked apart. On the preparation of this depends the elasticity of the tampon. The wool should be made light and fluffy. The edges of the cotton cover are then turned over from side to side, and the wool rolled in the cotton. An elastic cylinder is thus formed entirely covered with cotton, which material alone should come in contact with the vaginal mucosa. A slip knot made of a double thread of darning cotton is then thrown around one end of the tampon, the distal end when introduced into the vagina. The size of the tampon will be adapted to individual requirements, but the principle of construction will be the same, insuring elasticity, and a body covered with cotton in such

manner as to prevent the irritating wool from touching the vaginal mucous membrane.

I usually select my tampon medicament from among three, always using glycerine as the menstrum. Boroglyceride, Iodine and Icthyol, but others may be indicated. Hydrastis, when there is a tendency to capillary erosion; Sanguinaria, half a drachm of the powder in one ounce of glycerine, when the eroded surface is very vascular and bleeds easily if touched. Balsam of Peru when suppuration is excessive from an ulcerated surface, and the cervical endometrium protrudes from the inner os, but I use these, and possibly others as intercurrent remedies, and rely chiefly upon the first two mentioned. Boroglyceride will always prove a sedative, and when the case requires soothing applications will be indicated. I, however, generally depend upon Iodine prepared in glycerine, as I have already suggested, for I find it accomplishes all that can be accomplished in preparing for an operation. In introducing the tampon care should be taken to place it against the eroded surface and not in the fornix, where it is useless.

As a part of the preliminary treatment it is well to irrigate the cavity of the uterus if the os is well open, but I am chary about doing this, knowing how readily in diseased conditions of the endometrium, and of the mucosa of the Fallopian tubes, fluids may pass into the abdominal cavity. For an intrauterine douche I use a weak solution of Iodine, one drachm in a quart of sterile water.

As long as the purulent element continues in the discharge, it will be impossible to obtain satisfactory results from an operation on the cervix, nor can we safely curette any part of the uterus. But as soon as this is controlled and the catarrh returns to the mucous variety, repair of the cervix and thorough removal of the diseased endometrium must be undertaken, otherwise the catarrh cannot be cured.

Curettage and trachelorrhaphy have become such a routine procedure that there remains little to say in the matter of operative technique. Especially in country practice, almost every physician feels himself competent to curette a uterus, and repair a lacerated

cervix. The circumstance of remoteness justifies them in their practice, but there is no doubt that these operations are sometimes followed by disastrous results, and are not infrequently absolute failures. The disastrous results arise from imperfect asepsis, the failure to accomplish repair from lack of thoroughness in operative technique. The avenues of pelvic infection are especially by way of the lymphatics of the cervix, and the uterus, and inattention to the smallest details of preparation, or work, introduce so many elements of danger. The slow and imperfect convalescence that occasionally follows trifling gynæcological operations, can unquestionably be traced to some variety of infection introduced with the operation. Not all pathologic micro-organisms are pyogenic, but all when favorably placed live their life cycle, in doing which they either draw from or contribute to the system of their host. Such withdrawing or giving may be equally effective in disturbing metabolism, in interfering with local repair, or with the restoration to health.

The operative technique for curetting the

uterus and repairing a lacerated cervix is simple, as all surgery should be. After irrigating the vagina with Bichloride of mercury, followed by normal salt solution, I swab the exposed mucosa with acidulated alcohol—Acetic acid one drachm, Alcohol one ounce. Acetic acid increases the bactericidal properties of alcohol, and hardens the tissues included in the operative field. Thorough stretching of the cervical canal, without trauma, is necessary before curetting. This part of the operation should be done slowly, and if the dilator used has bilateral blades these must be brought successively in contact with every part of the canal until it is large enough to admit with ease the largest curette. Only a dull curette should be used to remove the endometrium of purulent catarrh; a sharp instrument is no more effective in its work, and possesses the positive danger of opening channels for infection.

Any plan of procedure that insures covering the entire interior of the uterus with the curette may be adopted. Especialy is it necessary to go well up into the cornua, a region

sometimes neglected. With a well dilated canal, and a definite plan of procedure, the curette need not be withdrawn until the entire surface has been gone over, and the endometrium removed. The cavity is then irrigated with salt solution, which tends to arrest oozing, until all shreds and particles have come away. It is then dried with pieces of gauze carried up with the uterine dressing forceps, and finally painted with Iodine tincture, on a swab. A few minutes will be required for the surplus Iodine and serum to be discharged, when the cervix will be ready for operation.

No hard and fast rules can be laid down for trachelorrhaphy. A simple bilateral laceration, the most frequent variety of tear, requires an equally simple technique. Holding the cervix with a volsellum, the posterior surface of the laceration—I usually attack the left side first—is denuded with sharp pointed, strong scissors, up to and beyond the angle of the tear. The incision includes the mucous membrane of the portio-vaginalis, the cervical endometrium, and the intervening musculature. The cut must be smooth, and suffi-

ciently deep to remove all diseased structures, and sufficiently broad to insure good surfaces for union. The denuded surface must extend well beyond all glandular hyperplasia. The same procedure is followed on the anterior lip, and then on the opposite side of the cervix. By undue dragging on one lip this is liable to be disproportionately elongated, and embarrass accurate coaptation of the flaps. To avoid this, and overcome the difficulty, I have had made a double volsella that engages both anterior and posterior lips at the same time, separating them as widely as may be desired while they are being denuded, by bringing the handles of the instrument together. This operation becomes more complicated when there are several lacerations. It is then usually better surgery to amputate the cervix above the apex of the tears, for sutures will not hold in the narrow strips of cervical tissue that are left between the lacerations.

I use a short, slightly curved heavy needle, and silk worm gut sutures. These cause less irritation than any other material, and

can be removed with ease if the loose ends are tied together, the sutures for each laceration forming a separate bundle.

To insure healing the denuded surfaces must be carefully brought together. It is a common mistake to allow the mucous membrane of the portio-vaginalis to become inverted when tying the sutures. Wherever this occurs healing fails to take place between the edges of the laceration, and in consequence the integrity of the cervix is not restored. An extreme result of this vicious union is a cervical canal of mucous membrane only, the muscular structures having been kept apart by introducing mucosa between the lines of union. This inversion of the mucous membrane may also be caused by tying the sutures unduly tight, under the erroneous impression that it is necessary to hold the parts in close contact. Surgical tension is as objectionable in trachelorrhaphy as in any other operation, and is followed by quite as disastrous results. The sutures should hold the parts in contact, no more, and allowance must be made for traumatic swelling, which is sure to take place during the

first forty-eight hours. Silk-worm gut sutures may remain in position several weeks, and, if possible, should not be removed until the next menstrual period has passed.

It must not be expected that curettage and repairing the lacerated cervix will be followed immediately by a cure of the catarrh. It is to be hoped that the purulent element will be removed, if it is not both operations will fail, but a mucous discharge frequently remains that will require continued douching, and possibly the further use of medicated tampons.

The constitutional treatment of purulent gynæcological catarrh will be on lines similar to those that have been marked out for the treatment of the mucopurulent variety. The hygiene of the patient is of the first importance, and must be regulated at every point that touches the functions of the organs and parts involved. Even more than in mucopurulent catarrh the general health suffers, for, in addition to the tax imposed upon the reparative processes, there is a toxæmia that interferes with metabolism in a very special manner.

The tissue remedies again come prominently to the foreground. Calcarea sulphurica, and Silicea, hold the most conspicuous positions. Especially do I rely upon the lime salt. Sulphur will be found of service as an intercurrent remedy when the case is running a chronic course, and apparently standing still. Kali phosphoricum I use to meet the neurasthenia always present in cases of long standing. Its exhibition does not interfere with any other remedy that may be indicated. Much has been said in favor of Echinacea for purulent diseases. I have used it internally and externally with but indifferent results. To obtain anything from its exhibition we must give it in material doses: One drachm of the tincture every two or three hours. Locally, I have used a preparation of the tincture, one-half glycerine.

D. Sanguineous Catarrh.

The propriety of considering sanguineous catarrh a distinct gynæcological disease rests upon well defined pathological and clinical data, for while any one of the preceding

varieties, simple, mucopurulent and purulent catarrh, may from an intensity of the process contain blood, adding a sanguineous element to the already established disease, sanguineous catarrh presents a wholly different history which separates it from all other varieties of gynæcological catarrh.

Sanguineous catarrh is essentially a disease of the uterus, though in women who have passed the menopause the vagina may become implicated, the entire genital mucosa suffering degeneration,—senile endometritis, senile colpitis. Occurring during the reproductive period of life, sanguineous catarrh represents a diffuse hyperplasia of the endometrium, not inflammatory in character. The mucosa is uniformly thickened and extremely vascular. There is a glandular outgrowth, the glands themselves assuming a most complex arrangement. New vessels are numerous, and in consequence of their thin walls there are frequent hæmorrhages into the endometrium, the infiltrated blood showing as dark ecchymotic spots on the surface of the vagina.

The reverse of this hyperplastic endo-

metritis is found in senility, though the bloody, watery catarrh is common to both diseases. The glandular structures are in process of degeneration, or may entirely disappear. Only patches of epithelium remain, connective tissue being greatly in excess of glandular tissue. But few vessels are found, and these are thickened or obliterated. In the vagina the degeneration is marked by discolorations of different size, over which the epithelium is very thin or entirely absent. The whole vagina is shrunken and anæmic save in isolated spots from which the bloody oozing takes place, and between which adhesions of the vaginal walls are contracted. Much the same condition is noted in senile purulent catarrh, save that in the sanguineous variety, even though advanced, there is no pus. The essential micro-organisms determine these differences. Thus we find that sanguineous catarrh may arise from wholly different conditions, according to the age of the patient, hyperplasia in adult life, atrophy in senility.

The etiology of sanguineous catarrh is rather obscure. The hyperplastic form is

probably due to some menstrual irregularity, or more frequently is connected with sub-involution of the uterus. Retroflexion may also act as a predisposing cause, though it must be acknowledged that any one of these conditions may exist without giving rise to hyperplastic degeneration of the endometrium.

The atrophic form is due to a vicious folding up of the reproductive function, but why this should be, save upon the basis of some dyscrasia, we cannot say. Neither variety can be removed from the field of micro-organism activity.

The clinical basis for classification is a thin mucous discharge containing blood, or composed mostly of blood. Prior to the menopause—hyperplastic form—the discharge is never continuous, but takes place intermittently, sometimes as an apparent prolongation of menstruation, but more frequently for a varying period between the monthly flow. The intermittent character of the discharge in sanguineous catarrh will serve to distinguish this from the bloody discharge that belongs to more serious uterine dis-

eases. Sarcoma which also attacks adult life gives rise to a watery discharge containing blood, but this is more or less continuous, and may become at times an actual hæmorrhage, an extreme condition not found in sanguineous catarrh, in which the discharge is made up of blood and mucus. Moreover an examination will determine the nature of the disease.

Sanguineous catarrh may occur in young girls at the establishment of menstruation. It is apt to follow the flow for several days, or to appear during the interval. It is always an indication of congestion of the endometrium, with more or less degeneration of its blood vessels. The condition of the lining of the uterus may be associated with some malposition of the uterus, more frequent at this early age than is generally recognized.

Sanguineous catarrh of senility is a continuous discharge, usually nothing more than an oozing, that keeps the vulva moist. It is inclined to be irritating and offensive, but both of these conditions depend largely upon the habits of the patient, and are rem-

edied by douching and attention to local cleanliness and hygiene. In making our diagnosis the suspicious character of any bloody vaginal discharge after the menopause will not be lost sight of. Reference has been made to this, but its importance cannot be too strongly emphasized.

The treatment of the sanguineous gynæcological catarrh of adult life is very satisfactory. Occurring before marriage it can almost always be cured with such remedies as Calcarea carb., Sepia, Helonias, Collinsonia, Hydrastis, or Pulsatilla, without other local medication than douching with Hydrastis, Iodine, Boracic acid, or Permanganate of potash. Any malposition of the uterus will be corrected, and the patient's general condition will receive such attention as may be required.

In pelvic conditions, especially those associated with local congestion, much benefit may be derived from the use of medicated baths. The milder cases would not be willing to submit to the inconvenience attending such treatment, but a course of baths at Vichy, Homburg, Kissengen, in Europe, or

at Mt. Clemens, the Hot Springs or the White Sulphur Springs in this country, or even hot salt baths at home, will more than repay the severer cases by the relief afforded and the additional power of recuperation thereby established. In chronic vulvovaginitis, and catarrh, sea baths are to be recommended, or a home bath containing:

℞. Sodium chloride .....lb. ii.
Sodium carbonate .....℥vi.
M.

It may become necessary to curette the uterus, to remove the hyperplastic endometrium, and treat the basement membrane directly with a view to restoring the function of the uterine cavity. Curettement is the same as under other conditions, the same complete dilation of the cervix, and thorough covering of the diseased area will be observed.

I use chiefly two remedies for swabbing out the uterine cavity after curettement. The tincture of Iodine again comes to the front, sometimes, however, I use a ten per cent. solution of Argyrol. Iodine, as in most

intra-uterine treatment, is more frequently indicated, but Argyrol will be of service when the detritus removed contains much granulation tissue, the same conditions that elsewhere suggest the use of Silver nitrate. In some chronic cases it may be necessary to repeat the scraping, but an ultimate cure may confidently be looked for.

The sanguineous catarrh of senility—atrophic variety—does not warrant so favorable a prognosis. The structural changes are a part of the degeneration of age, and being in excess of the normal process, and characterized by lawlessness of function, are difficult to arrest, since the entire organism is losing its reparative power and tending to decay.

Local treatment, save in the form of douches, is not generally practicable. The vaginal walls are hard and unyielding, and even the use of a speculum is liable to injure the thinly covered mucous membrane, adding a denuded, and ultimately an ulcerated surface to an already poorly nourished vagina. A douche of Hydrastis, fluid extract, or when an astringent is required, of

Zinc chloride, ten grains in one quart of water, will yield good results.

For the pruritus, so frequently such an annoying symptom, and one that in extreme cases renders existence almost unendurable, depriving the patient of rest during both day and night, the treatment already suggested may prove efficacious; it sometimes, however, becomes necessary to cauterize the surface with the object of destroying the cutaneous nerves. We will think of the Nitrate of silver:

℞. Silver nitrate .....gr. xii.
Distilled water .....℥i.
M.

Or the actual cautery may be required. These measures failing, I have resorted to removal of the entire external genital organs, ablating the vulva, and even the clitoris with its prepuce. The possibility of sensory nerves becoming involved in cicatricial tissue is always to be apprehended, but one case of long standing in which I performed this operation, was entirely cured, the patient, who was unmarried, subsequent-

ly marrying, became the mother of several children. It will, of course, be understood that I do not advocate this radical treatment until every other means of cure has been exhausted.

CHAPTER IV.

THERAPEUTICS.

PART I.

THERAPEUTIC SUGGESTIONS.

Actea rac. Profuse mucous catarrh. Weight and bearing down of the uterus. Spasms of the broad ligament. Rheumatic pains in the back and through the pelvis, the pains running down the legs, which feel numb. Frontal headache. Great mental depression. Subinvolution of the uterus.

Æsculus hippocastanum. Chronic muco-purulent catarrh, dark, yellow, thick and stringy, corroding. Retroversion of the uterus, which is enlarged and indurated, with heat and throbbing. With the discharge there is marked lameness across the sacro-iliac articulation. Hemorrhoids, constipation, and congestion of the portal system. Neuralgic pains that fly rapidly from spot to spot. Stunning pain in the head with extreme irritability. Dull aching in the occiput spreading to the neck and shoulders.

Agnus castus. Copious transparent (cervical) catarrh which stains the linen yellow. Sexual excitement with relaxation of the genital organs. Conditions caused by ungratified sexual desire, or from exhaustion following excessive indulgence. Mental dullness, and depression.

Aloe socotrina. Sanguineous catarrh of old women, the mucus appearing in jelly like lumps. Pain and fullness in women past the climacteric, as of approaching menses, relieved by a sudden flow of bloody mucus. Bloody mucus in the place of stool, the patient thinking it would be diarrhœa. Pressure and heaviness in the sacrum relieved by walking.

Alumen. Copious muco-purulent catarrh from an eroded cervix. The uterus is hard, and denuded spots and granulations are found in the vagina. The discharge is irritating, inducing pruritus vaginæ. There is extreme sensitiveness of the vagina interfering with an examination. The left ovary is enlarged, sensitive, and the seat of severe pain. There is constipation from dryness of the rectum, the hard fæces being expelled with difficulty. It is characteristic of the urine of Alumen that it is covered with an oily iridescent film.

Alumina. Very profuse transparent catarrh, acrid, corrosive, aggravated during the day. Thin, light yellow excoriating discharge, inducing inflammation and swelling of the vagina. The urine passing over the parts causes intense burning. Prolapsus of the uterus. Deep erosions of the cervix.

Ambra grisea. Bluish white catarrh accompaning nymphomania. Thick mucous catarrh during the night. Pruritus vulva. Soreness

and swelling of the vulva. All the uterine symptoms are aggravated by lying down. Ambra grisea will be thought of for the catarrh of young girls, nervous girls who suffer from chlorosis, or when the catarrh follows a protracted illness from which recuperation has been slow.

Ammonium carbonicum. Acrid, watery, burning catarrh causing excoriation and ulceration of the vulva, with sloughing. There is congestion and excitement of the sexual organs. Hysteria, with listlessness, and lethargy. Hemorrhagic diathesis from fluidity of the blood. Indicated for stout women who lead a sedentary life, and readily take cold in winter.

Ammonium muriaticum. Catarrh resembling the white of egg, preceded by griping pains about the navel. Brown, slimy catarrh increased after urinating. Uterus large and heavy. Menstrual flow more profuse at night. Obstinate constipation, stools hard and crumbling. Strained feeling in the groins, causing the patient to walk bent over.

Anacardium orientale. Catarrh causing soreness and itching. Menses scanty but too frequent, the catarrh continuing between the periods.

Angustura. Catarrh resembling milk, becoming green. Catarrh immediately before the menses. Prolapsus of the uterus. Itching pustules on the labia.

Antimonium crud. Very acrid watery catarrh, containing lumps of mucus, and causing smarting wherever it touches. Nymphomania following checked menstruation. Very sensitive to cold air. Acne of young girls. Ill effects of suppressed eruptions.

Antimonium tartaricum. Sanguineous catarrh, worse when sitting, coming in paroxysms. Pustules on the labia with violent itching. Chronic metritis. Prostration and general weakness out of proportion to the apparent condition.

Apis. Catarrh acrid, profuse, green, with frequent painful urination. Neuralgic pains in the labia. Swelling of the right labium. Œdema of the vulva. Right ovarian neuralgia.

Argentum nitricum. Bloody, corroding, yellow, and profuse catarrh. The uterus is prolapsed, and soft. Erosion of the cervix with exuberant granulations, in some places there are excavating ulcers which bleed easily. The nervous symptoms and the pelvic symptoms recur with marked regularity. The vaginal mucous membrane is dotted with ecchymotic spots owing to the specific action of the Nitrate of Silver on the red blood corpuscles. The patients look old for their age, and suffer with nervous headaches from mental causes.

Arsenicum. There is a white offensive discharge

instead of the menses. Catarrh acrid, corrosive, thick and yellow. All the catarrhs of Arsenicum cause intense burning. Sanguineous catarrh of old women, very acrid, and offensive. The keynote of Arsenicum is burning. It may be internal or external, but is always present. There is marked emaciation and pallor, with blue rings around the eyes. Especially adapted to youth and adolescence. Anæmia.

Asafœtida. Catarrh profuse, greenish, and offensive. Erosion of the cervix. Hysterical women, weak and delicate, suffering from oversensitiveness. Very changeable moods.

Asarum Europœum. Tenacious yellow catarrh occurring two or three months after confinement. Suitable for plethoric young mothers who have suffered for years with headaches. A dull pressure over the whole head.

Aurum metallicum. Thick white catarrh causing burning and smarting of the vulva, the labia majora are red and swollen. Profuse yellow corroding catarrh. Prolapsus of the uterus with backache. There is a constant oozing of mucus from the vagina. Extreme mental depression.

Aurum muriaticum. Light yellow catarrh, especially in the morning. Uterus prolapsed and indurated. Chronic metritis. Vaginitis. Burning, heat and itching in the vagina. Sterility.

Baryta carbonica. Sanguineous catarrh of old women, with palpitation of the heart, pain in the back, weakness and fainting. Vaginal discharge immediately before menstruation. The patient is always tired. Catarrh during the climacteric. Especially suitable for dwarfish women of soft lax fibre.

Berberis. Acrid catarrh, vaginitis with intense itching and burning, with sensation of rawness of the vagina. Alone these symptoms are not characteristic, but when accompanied with biliousness, or inflammation of the urinary organs, they may become so, and should be studied for further indications.

Borax. Catarrh like the white of egg, with sensation as if warm water were flowing over the parts. White albuminous or scanty discharge. Acrid catarrh between the menses. Profuse clear gelatinous discharge relieving all the other genital symptoms. Aphthæ of the vagina and vulva.

Bovista. Catarrh a few days after, or a few days before menstruation, resembling the white of egg, aggravated while walking. Yellow, green, acrid, corrosive discharge that leaves green spots on the clothing. Thick, slimy, tough discharge. Soreness between the labia, and thighs. Tendency to moist eruptions on the skin. The mental state is one of irritability, with inclination to misconstrue the motives of others.

Bromine. Milk white catarrh with much pain in the left ovary, which is hard and sensitive. Vagina sore and painful. Swelling of the lymphatics without suppuration, in various regions of the body. Conditions remaining after scarlatina. Suitable for adults with blue eyes and light hair, fair papery skin. Scrofulous.

Bufones. Muco-purulent catarrh. Purulent catarrh. Offensive. Ulceration of the cervix uteri with burning pains. Sharp pains in the uterus.

Calcarea carbonica. Catarrh like milk, with itching and burning before and after menstruation. Profuse, coming in fits and starts. Aggravated after exercise, with great debility. Burning in the uterus. Chlorosis. Pruritus with heat of the parts. Discharge acrid, corroding the genitals. Varices of the labia. Intense itching and soreness of the vulva. Purulent catarrh with swelling of the vulva, and inflammation. Menses too early and last too long. The least excitement causes a return of menstruation.

Calcarea phosphorica. Catarrh like the white of egg, creamy discharge. Much aching in the vagina. Throbbing and stinging in the vulva. Menses too early. Great sexual excitement, with congestion of the erectile organs. Constant voluptuous sensation in the external parts with pulsation as if filling

with blood. Young girls who have been disappointed in love.

Calcarea sulphurica. Profuse purulent catarrh. Menstruation is delayed, but continues too long. The discharge contains lumps of pus, and may be bloody. Pustules develop on the vulva, and other parts, which rapidly pass to the stage of suppuration.

Cannabis sativa. Infantile gynæcological catarrh. In the absence of other history there is always the suspicion of gonorrhœa, but genital catarrh in children does undoubtedly arise from other causes.

Cantharis. Muco-purulent catarrh containing shreds of mucus, blood, and desquamated epithelium. The key note of cantharides is irritation. There is oversensitiveness of all the sexual parts. The ovarian regions are sensitive to pressure, with bearing down. Vaginismus. Swelling and irritation of the vulva. Portio vaginalis swollen. Irritation of the bladder with the characteristic dysuria of this drug.

Carbo animalis. Offensive muco-purulent catarrh which stains the clothing yellow. Corroding, burning, aggravated when standing or walking. Uterus swollen; slimy, bloody catarrh. All the discharges are offensive. Prostration is marked, and the local pathology suggests malignancy. Carbo an. will be found serviceable for young women, and

elderly persons, especially those suffering from venous plethora, with blue cheeks, and blue lips.

Carbo vegetabilis. Catarrh thin, aggravated in the morning on rising, scanty during the day. Milky, excoriating, thin, yellow, preceding or following the menses, intermitting, coming and going suddenly, with rawness and soreness of the labia. Swelling of the vulva. Prurigo, varices and itching of the vulva. Red sore spots on the pudenda, aphthæ. Lassitude and general weakness. The catarrh is of long standing. Acts well on old persons.

Carbolic acid. Copious, fetid, greenish acrid catarrh, especially following profuse menstruation. The uterine cervix is hard, and eroded.

Caulophyllum thalictroides. Acrid catarrh, very weakening. Profuse, bland, mucous catarrh with "moth spots" on the forehead in young girls. Profuse, mucous catarrh with congestion of the uterus, and forcing down pains. Aphthous vaginitis. Menstrual colic, uterus retroverted. Hysteric convulsions during dysmenorrhœa. Catarrh in little girls.

Causticum. Catarrh having the same odor as menstruation, at night only. Clear ropy acrid catarrh with itching and smarting of the vulva. Urine acrid, causing biting like salt of the pudendum. Menstruation during

the day only. The capillaries are near the surface showing as a fine net work under the skin, in various parts of the body.

Cedron. Catarrh regularly every month five or six days previous to the catamenia, with pain in the uterus and swelling of the vulva. Catarrhal discharge appearing in the place of the menstrual flow. Menstrual epilepsy. All the symptoms recur with clock like regularity. Adapted more especially to women of a voluptuous disposition, and of an excitable temperament.

Chamomilla. Acrid biting watery discharge, particulary after eating. Yellow smarting catarrh, causing burning in the vagina as if excoriated. Many menstrual symptoms with intolerance of any suffering. Physical and mental irritability. Excitable temperament.

Chelidonium majus. Acrid catarrh. There is nothing characteristic in this symptom, but when taken in connection with the well known hepatic and gastric action of Chelidonium it may assist in selecting the individual remedy.

Cinchona officinalis. Sanguineous catarrh. Purulent catarrh. Acrid catarrh in the place of the menses, with itching, contraction of the uterus, and bearing down. Bloody catarrh containing clots one week before the menses. Painful induration of the vagina. Ovaritis

from sexual excesses. Cinchona is suitable for women who have passed the climacteric, and when there is exhaustion from loss of any of the fluids of the body.

Cinnabaris. Genital catarrh, the discharge of which causes pressure, or labor like pain in the vagina.

Cocculus. Catarrh of mucus, purulent, ichorous. Discharge of bloody water, resembling the washings of meat, gushing out when bending, or squatting. Menstruation gradually more scanty until catarrh takes its place, the discharge then becoming continuous. There is hyperæsthesia of all the senses, and an exalted susceptibility to impressions. A slight noise or unsuspected touch induces starting and trembling all over the body. Persistent occipital headache, with a peculiar swimming sensation as of seasickness.

Coffea cruda. Profuse discharge of bloody mucus preceded by paroxysms of colic, voluptuous itching, and sexual excitement. Mucous, or milky catarrh when urinating, sensitiveness of the vulva. Overexcitement of the entire nervous system. Cerebral erethism. Urethral caruncle.

Collinsonia Canadensis. Discharge of mucus—simple catarrh—with obstinate constipation, and dysmenorrhœa. Pruritus vulva. All the pelvic systems depend upon congestion

of the portal vessels. There is congestion of the cervix, congestion of the uterus, congestion of the rectum, with hæmorrhoids.

Colocynthis. Thick, yellow, offensive catarrh between the menses. Swelling of the labia with dragging pain and heat in the vagina. The cramping, cutting pains of Colocynthis that are made better by relieving muscular tension are valuable indications.

Conium maculatum. Discharge of mucus following uterine spasm. Bloody catarrh in the place of menstruation. Acrid and burning catarrh, white or yellow, preceded by griping and pinching in the abdomen, and lameness in the small of the back. Profuse, bloody mucus, excoriating, thick, milky white and acrid mucus, causing burning and smarting. Stitches in the vulva, itching of the vulva. Sero-purulent eruption on the mons veneris. One of the most frequently indicated remedies for erosion of the cervix with characteristic hardness and induration. This may exist quite independently of malignancy. The pelvic condition calling for Conium can frequently be traced to a strain, or to a fall that has displaced the uterus. It is especially useful for old women.

Copaiva. Bloody purulent mucous discharge from the uterus upon pressure. Milky, acrid discharge, strangury. Throbbing pain in the ovaries. This drug is more frequently indi-

cated in specific cases, but inasmuch as it induces profuse discharges from mucous surfaces generally, it may be found useful in non-specific gynæcological catarrh.

Cubeba. Profuse chronic catarrh, very acrid, green, yellow and offensive. Vaginitis, erethema on the inside of the thighs, and pruritus of the vulva. Uterus swollen and painful. Catarrh takes the place of the menses. The urinary symptoms of Cubeba will be concomitants. Acrid catarrh of children. Acts well in persons of a bilious temperament.

Curare. Scanty, thick, purulent foul discharge in clots. The pathology of the cervix and vagina indicate the tissue destruction of malignancy, and may remove this remedy from the class of uncomplicated gynæcological catarrhs.

Cyclamen Europœum. Catarrh in blond, leucophlegmatic subjects, with retarded scanty menstruation. Chlorosis and anæmia, attacks of fainting; there is constant chilliness of the whole body. The menses cease when moving about, reappear when sitting quietly, or when in bed.

Drosera rotundifolia. Genital catarrh with labor like pains. This may be included in the clinical picture that shows the action of Drosera on the pneumogastric nerve, producing a spasmodic dry cough like whooping cough.

Dulcamara. Genital catarrh appearing, or aggravated, in cold damp weather, with herpetic eruptions on the vulva. Preceding the catemenia there is always some form of skin eruption.

Erigeron. Profuse catarrh with spasmodic pains, and irritation of the bladder, and rectum; usually scanty menses. Chronic uterine catarrh. Prominently in the pathogenesis of Erigeron will be observed active congestion of various organs, with a tendency to hæmorrhage. It is especially indicated for small, frail, delicate women.

Eucalyptus globulus. Acrid, fetid mucous catarrh. Urethral caruncle. The urine has the odor of violets.

Eupatorium purpureum. Uterine catarrh, chronic metritis. Profuse and frequent urinating, with painful urging.

Ferrum. Discharge of mucus in the place of the menses. Chlorosis. Catarrh before the menses. Discharge resembling watery milk, smarting and corroding when it first appears, becoming more bland. Dragging pains in the loins, pelvis and thighs. Much itching of the vulva in weakly, delicate women. Face red. Menorrhagia, especially when accompanied by a flushed face, and followed by a very acrid catarrh. Laxness and weakness of the entire musculature; weak digestion, and cold extremities. Anæmia.

Ferrum iodatum. Catarrh resembling boiled starch, which is discharged in strings during stool. Itching and soreness of the vulva and vagina with swelling. Constant bearing down ; when sitting she feels as if something were being pushed up through the vagina. Prolapsus of the uterus, the cervix actually protruding from the vulva.

Fluoricum acidum. Acrid excoriating catarrh with itching. Chronic erosion of the cervix, with sharp darting pains. Coccyodynia. Varicose veins. Congestion of the sexual organs.

Gelsemium. Catarrh resembling milk with fullness of the uterus, in nervous, excitable, hysterical women, old maids, and students. Aching across the lower part of the back. Catarrhal discharge in gushes. Neuralgic pains with cramps in the uterus and legs. Cramps in the utero-sacral ligaments. Pain from the occiput to the forehead, as though a knife were thrust through. All the symptoms are relieved by the free flow of urine. Congestion, both venous and arterial, with sluggish circulation, face red, and a sodden expression.

Graphites. Catarrh occurring in gushes, acrid, excoriating. Profuse catarrh with weakness in the back and sacrum. Yellowish-white, that excoriates the skin. Uterus indurated and sore. Catarrh profuse and perfectly

white, especially on rising in the morning. Copious thin catarrh, causing biting and smarting in the vagina. Itching, smarting vesicles on the vulva. Œdema of the vulva. Enlarged ovaries, becoming more tender after getting the feet damp. Vagina hot and painful. Swelling of the lymphatic vessels and mucous follicles of the vagina. The neck of the uterus is hard and swollen. Catarrh in the place of the menses. Tendency for the skin to crack and form fissures. Moist eruptions, the discharged fluid being excoriating. Adapted to women inclined to obesity, who suffer from habitual constipation, and whose history is of delayed menstruation.

Guarea trichilioides. Fetid catarrhal discharge after the menses.

Hamamelis Virginica. Profuse purulent catarrh with sensitiveness of the parts, vagina sore and raw; vaginitis. Relaxation of the walls of the vagina. Sanguineous catarrh with excessive tenderness of the vagina. Ovaritis. Marked tenderness always suggests this remedy. Venous stagnation of the skin and mucous membranes.

Helonias dioica. Catarrh with profuse flooding at the menopause. Intense pruritus of the vulva and vagina with curdy secretion. Aphthous vaginitis. Labium and pudendum hot, red and swollen, with burning and itch-

ing. Catarrh with pains in the lower part of the back, soreness and tenderness of the breasts and nipples, particularly during menstruation. Catarrh in old women. Prolapsus uteri and erosion of the cervix, catarrhal discharge constant, dark, offensive, aggravated when lifting and upon the least exertion. Vaginal irritation. Profuse watery catarrh in feeble women who suffer from uterine displacement, face sallow. Profuse menstruation is characteristic of Helonias. Extreme languor for which she can find no cause. Suitable for women who are enervated by indolence and luxury. Conditions developed in connection with the climacteric.

Hepar sulph. calc. Purulent, fetid catarrh. Smarting of the vulva. Erosion and ulceration of the cervix, the discharge having the odor of old cheese. The patient is extremely sensitive to open air, and to changes of temperature. A damp east wind aggravates all the conditions. Very sensitive to contact, the patients dread to be touched, out of proportion to the actual pain caused. There is an offensive exhalation from the body.

Hydrastis Canadensis. Uterine and vaginal catarrh of tough, stringy mucus. Purulent catarrh. Hot watery discharge from the uterus. Acrid, corroding catarrh about one

week after menstruation. Profuse discharge like the white of egg immediately after menstruation, lasting about two weeks; very debilitating. Yellow tenacious catarrh in long threads and pieces. Pruritus vulva. Cervix swollen, indurated and eroded. Ulceration of the cervix. There are almost always disorders of digestion when Hydrastis is indicated.

Ignatia. Purulent corrosive genital catarrh with labor like pains. Chronic catarrh with sexual excitement. Vaginismus. Pruritus of young girls, with catarrh. Suppressed grief. Rapidly changing moods. Melancholia. Irritable and impatient, sad, concealing her grief from others.

Inula. A moving about in the abdomen as at the appearance of the menses, followed by yellowish catarrh. Stitches in the region of the uterus and genitals. Urine smells like violets.

Iodine. Thin, yellow catarrh in scrofulous women, with induration and swelling of the os uteri and engorgement of the vagina. Chronic catarrh most profuse at the time of menstruation, causing soreness of the thighs, and corroding the linen. Corrosive catarrh in women subject to chronic menorrhagia. Hardness and swelling of the cervix. Weakness and loss of breath on going up stairs. Uterine catarrh alternating with cough. Gradual emaciation.

Kali bichromicum. Catarrhal discharge that can be drawn out in long strings. Yellow ropy, stiffening the linen. Pruritus. Subinvolution of the uterus. The catarrhal discharge alternates with rheumatic pains in various regions of the body. Suitable for fat, light haired persons who are subject to catarrh of all the mucous membranes.

Kali ferrocyanatum. Purulent catarrh, profuse, not irritating, that follows the menses. Usually in the day time only. Pain in the small of the back. Acidity and pressure at the stomach after eating. Menses too frequent and too profuse.

Kali iodatum. Catarrh watery, acrid, corrosive with biting in the pudendum; milky, white, green or yellow, putrid. Discharge that resembles the washings of meat. Subinvolution of the uterus. Hypertrophy and enlargement of the uterus. Uterine fibroids. Constant catarrh. Pain in the back—lumbago. Hard swelling of glands and infiltration of cellular tissue are characteristic of Kali iodatum. Syphilis or mercurialization will always be considered.

Kali muriaticum. Bland milky catarrh. Thick, yellow, slimy discharge. Kali muriaticum will rarely be indicated in genital catarrh unless there is a concomitant pelvic exudate the result of a former pelvic cellulitis. In this condition the remedy is well nigh a specific.

Kali phosphoricum. Catarrh yellowish, blistering, orange colored, scalding and acrid. Intense sexual desire after the menses. Amenorrhœa with depression of spirits, lassitude and general nervous debility. Kali phos. covers the entire field of nervous exhaustion.

Kali sulphuricum. Purulent catarrh, yellow, green. The vaginal lymphatics are involved, and there is desquamation of the genital epithelium.

Kalmia latifolia. Yellowish catarrh one week after menstruation, at which time all the symptoms are aggravated. This remedy will be thought of when there are severe pains in the region of the heart—angina pectoris. Rheumatic pains suddenly leave the extremities; stitches in the heart. Hypertrophy of the heart and valvular insufficiency. Articular rheumatism.

Kreosotum. Catarrh putrid, acrid, corrosive, that stains the linen yellow, and stiffens it like starch. White discharge having the odor of green corn. A bland yellow discharge precedes each urination. Drawing pains from the coccyx, extending into the rectum and vagina. Electric like stitches in the vagina. Itching in the vagina. Vaginal mucous membrane swollen, burning and puffy. Brownish acrid catarrh, offensive. Sanguineous catarrh. Erosion of the cervix with watery, offensive catarrh. The character-

istic catarrh of Kreosotum is offensive and excoriating.

Lachesis. Catarrh from three to eight days before the menses, green or thick yellow. Copious, smarting, stiffening the linen, staining it green. Simple mucous catarrh with redness and swelling of the pudenda. Uterus enlarged, os open, with ectropion of the endometrium. The vaginal mucosa and that covering the portio vaginalis are dark blue from venous stasis, with tendency to bleed when touched. Purpura hemorrhagica. Especially indicated at the climacteric, and for affections developing after that period has passed.

Lactic acid. Catarrh that stains the linen saffron yellow.

Leptandra. Catarrh with erosion of the cervix, shreds of mucus. Sometimes fetid. Irritation of the bladder, much dull aching in the abdomen.

Lilium tigrinum. Constant mild profuse catarrh that stains the linen greenish yellow. Thin acrid excoriating discharge leaving a brown stain on the linen. Bright yellow catarrh, excoriating the pudendum. Bearing down, and distress in the pelvic region. Must hold herself together. Dry mealy spots on the labia, with intolerable itching. All the uterine ligaments and supports are relaxed. Offensive catarrh resembling the white of

egg, with dull pain in the ovaries. Almost constant bachache. Chronic ovaritis and neuralgia of the ovaries.

Lycopodium. Catarrh milky, bloody, in starts, corroding, aggravated before a full moon. Catarrh thin, yellow, ulcers on the os uteri. The catarrh alternates with dryness of the vagina. There is an entire absence of the normal secretion of genital mucus. The skin is unhealthy, there is eczema on the genitals that bleeds easily, and is covered with a thick offensive secretion. When Lycopodium is indicated there will always be found excoriations where mucous membrane and skin pass into each other, the anus, the vulva and the mouth.

Magnesium carbonicum. Acrid, white mucous catarrh preceded by colic. Watery catarrh after the menses, thin, scanty, with pinching around the navel. All the pains are lancinating, and lightning like. The muscles are lax and flabby. Rheumatic affections. There is a sour smell from the entire body.

Magnesium muriaticum. Catarrh watery, or thick, followed immediately by a discharge of blood. After exercise, with every stool, preceded by spasm and contraction of the uterus. Uterine spasm followed by a profuse discharge of mucus. A remedy of wide usefulness in many gynæcological conditions.

Magnesium sulphuricum. Catarrh thick, profuse, with bruised pains in the small of the back.

Mercurius. Muco-purulent catarrh, constant, but aggravated after menstruation. Catarrh containing lumps, sticky, green, bloody, causing burning and intense itching. White patches on the vaginal and labial mucosa, which when removed leave a raw surface. Labia swollen. Spasms of the vagina, vulvitis, erosion and ulceration of the cervix. All the conditions of Mercurius are aggravated in the cold air, and by cold water. There is also an aggravation after becoming warm in bed. Suitable for light haired persons, with lax skin and muscles.

Mercurius corrosivus. Profuse, muco-purulent catarrh, pale yellow, tinged with blood; thin mucous discharge causing intense burning and heat. Inflammation of the vulva and vagina. The symptoms seem to be in excess of the local pathology.

Mercurius iodatus flavus. Copious muco-purulent catarrh, yellow catarrh particularly in young girls, or children. The entire skin is irritated, causing persistent itching.

Mezereum. Catarrh like the white of egg, corroding. Mucous discharge from the vagina and urethra. Erosion of the cervix. Mucous catarrh tinged with blood. Smarting, burning, pricking in the ulcerated uterus. Thick honey-comb scabs cover all the eruptions, which itch intolerably and bleed easily when touched.

Murex purpurea. Watery, greenish, irritating catarrh, with dragging and relaxation of the perineum, pain in the hips, loins and down the thighs. With the catarrhal discharge the mental conditions improve. Uterus swollen and cervix elongated. Soreness of the cervix. There is usually disturbance of the sexual function; most intense sexual excitement.

Myrica cerifera. Excoriating, fetid, thick and yellowish catarrh. Chronic catarrh. Urine high colored, saturated with the coloring matter of bile.

Naja tripudians. Thin, white catarrh in the afternoon. Cramping pain in the left ovary, ovarian congestion.

Natrum carbonicum. Profuse genital catarrh after frequent attacks of colic. Frequent copious urination. Thick, yellow, putrid catarrh. Bearing down as if the uterus would protrude. Passive congestion of the uterus. Leuco-phlegmatic constitution with aversion to the open air, and disinclination to exertion, either mental or physical.

Natrum muriaticum. Profuse, acrid, greenish catarrh in the morning, transparent, watery, greenish, particularly after walking, with headache; corrosive, transparent mucus, causing excoriation, irritation and itching, with falling off of hair from the pubes. Pimples on the mons veneris.

Natrum phosphoricum. Creamy, honey colored catarrh. Watery, sometimes acrid catarrh. Prolapsus uteri.

Natrum sulphuricum. Acrid corrosive catarrh. Vulvitis with swelling. Vulva covered with vesicles the size of lentils, filled with pus. Prolapsus uteri. Purulent catarrh during pregnancy. Phlegmasia alba dolens. All the conditions are brought on or aggravated in damp weather.

Niccolum. Profuse watery catarrh, especially after urinating, and following menstruation. Periodic nervous headaches, recurring every two weeks. Amenorrhœa.

Nitric acid. Catarrh of ropy mucus, green mucus, flesh colored, acrid, brown, offensive. A sudden gush of muddy water following violent pain in the abdomen. Coffee ground offensive discharge from the uterus at the climacteric, or after labor. Very offensive urine. Pain in the small of the back with burning pain running down the limbs. Vaginitis with cracks and ulcers on the labia minora, aggravated by cold bathing. Erosion of the cervix, the glandular hyperplasia is very marked, and bleeds easily when touched. Eczema of the genitals. Suitable for persons suffering from diarrhœa. There is rarely constipation.

Nux moschata. Genital catarrh in the place of the menses in women who always awaken

with a dry tongue. Functional affections of the heart, nervous palpitation of the heart. Flatulent distension of the abdomen, when it can be traced to some nervous disturbance. Clairvoyant state of the mind.

Nux vomica. Catarrh of yellow mucus, fetid, staining the clothing yellow. Swelling of the vagina, with prolapsus of the uterus. Corrosive itching eruption of the vulva. Chronic metritis, hardness and swelling of the uterus. Prolapsus of the uterus with bearing down pains. A great variety of pains in the back. Stiff neck, lumbago, spinal irritation, convulsive spasm and twitching of single muscles brought on by a sudden jar, or shock. Excitable, irritable disposition, inclined to sudden anger. Tense fibre, irascible temperament. Constipation. Conditions associated with overindulgence in alcohol, and induced by rich living.

Oleum animale. Thin white mucous catarrh. Choking and constriction of the throat. Itching like flea bites, disappearing suddenly, or changing to burning heat.

Oleum jecoris aselli. Purulent uterine catarrh. Pain in the back, lumbago. Difficult to walk because of pain in the sacro-iliac synchondrosis. Patients are always cold.

Origanum. Profuse mucous catarrh which is only a concomitant symptom, depending upon sexual irritation, and uncontrollable

sexual desire which leads to masturbation, and the effort to overcome which induces religious insanity. The presence of men excites the desire to masturbate, rather than for sexual intercourse. Young girls, divorced women, widows, old maids, with the most intense sexual excitement, driving almost to despair. Itching of the vulva, with catarrh. An invaluable remedy in the treatment of masturbation in females.

Palladium. Yellow catarrh becoming white and thick. Transparent jelly like catarrh, preceding and following menstruation. Affections of the right ovary. Pain, weight and soreness in the region of the uterus making walking and standing almost impossible. There is a peculiar sensation of being very tall when walking.

Petroleum. Burning, acrid, profuse, excoriating mucous catarrh. Itching and burning in the vagina and labia. Pruritus with herpetic eruptions. The concomitant skin symptoms will suggest this remedy. The skin is unhealthy, with a tendency to crack, leaving moist surfaces, or deep fissures. Itching, thick scabs, from under which oozes pus. The discharges are usually excoriating, and aggravated in winter.

Phosphoric acid. Profuse, yellow, thin, acrid mucous catarrh, after the menses. Itching of the vulva. Ulceration of the cervix, with

bloody profuse discharge. Inflammation of the uterus. Weakness, neurasthenia. Hysteria in young girls. Suppression of exanthemata by cold.

Phosphorus. Milky, excoriating catarrh during menses, with cold hands and feet, and cutting in the left ovarian region. In the place of the menses, a white, watery mucus; acrid and excoriating catarrh, causing blisters and soreness. Slimy, bloody catarrh in old women. Stitches running from the vagina into the pelvis. Œdema of the labia. Nymphomania. Sterility from excessive sexual feeling. The patient is very susceptible to external impressions. Amenorrhœa with a weeping mood. Suitable to tall, slender blondes, or blondes with red hair, a quick, lively disposition, and sensitive nature.

Physostigma. White milky, or bloody, scanty, stringy catarrh, aggravated about four o'clock in the afternoon. Dread of cold water. Weakness of the muscular system.

Phytolacca. Thick, tenacious and irritating catarrh in women who suffer from various glandular swellings, and from abscesses in the breasts. Uterine catarrh, nerosis of the cervix, and even ulceration. Aching and soreness all over the body. Rheumatic diathesis.

Platinum. Catarrh like white of egg after rising from sitting. Excessive sexual desire with

over-sensitiveness of the genitals, inducing spasms during an examination. Premature development of the sexual instinct. An arrogant over-estimation of one's self, and one's importance, with haughtiness towards others. She wishes to embrace every one she meets.

Podophyllum peltatum. Thick, transparent mucous catarrh. Bearing down pain in the small of the back during menstruation, pain in both ovaries, numbness and aching pain running down the thighs. Pain in the right ovary involving the anterior crural nerve.

Prunus spinosa. Excoriating catarrh coloring the linen yellow. Frequent urgent desire to urinate, which if not attended to immediately causes very sharp pains in the bladder.

Psorinum. Catarrh in large lumps that have an intolerable odor. Violent cramps in the sacrum and right loin. Induration of the right ovary. Moist eczematous eruptions. All the discharges have a carrion like odor, even the perspiration is foul.

Pulsatilla. Catarrh painless, thick mucus having the color of milk, especially on lying down. Catarrh acrid, thin, with pruritus, near the change of life, or before menstruation is fairly established. Thick, white mucus, with backache. The menses are too late, or are suppressed; menstrual colic. Affections from getting the feet wet. Prolapsus uteri. The patient is tearful and

easily discouraged. She is anxious. Anxiety in the epigastric region. The patient is moreover always chilly, but finds relief in the open air. The pains of Pulsatilla appear suddenly, and leave gradually; they also shift rapidly from part to part.

Ranunculus bulbosus. Catarrh at first mild, becoming acrid and corroding. Ovarian neuralgia, chronic cases always excited by atmospheric changes. Vesicular eruptions, as from burns. Shingles, and intercostal neuralgia. Eruptions of blisters secreting a foul smelling gluey matter.

Robinia. Yellow green, thick, acrid catarrh. Purulent catarrh with tumefaction, and bruised feeling in the cervix, and general prostration. Ulcerative pains in the vagina, with acrid yellowish catarrh having a most fetid odor. Sensation as if the brain revolved; as if the head were full of boiling water.

Ruta graveolens. Corrosive catarrh after irregular or suppressed menstruation. Pressure to urinate, though there is little urine in the bladder. If the urine is retained it cannot be voided.

Sabina. Yellow, ichorous, fetid catarrh, and painful discharge of fetid blood every two weeks, during the climacteric. Catarrh of the consistence of starch, copious, milky, causing itching. Ropy, glairy catarrh from the

cervical canal, with drawing pain in the back through to the pubes. Corrosive catarrh in a primipara causing soreness and itching of the thighs. Stitches from below upwards deep in the vagina. Protracted uterine hæmorrhage arising from loss of tone in the vessels of the uterus, blood dark and clotted. There is a tendency to abort at the third month. Threatened abortion with profuse mucopurulent catarrh.

Sanguinaria Canadensis. Corrosive fetid catarrh at the climacteric. Ulceration of the uterine os, which bleeds readily.

Sarracenia purpurea. Watery or milky catarrh, thick, whitish, foul smelling, with spasmodic pains in the uterus. Cervix swollen and hot. Miliary eruption on the vulva; heat in the vulva.

Sarsaparilla. Catarrh that continues six months after parturition, with labor like pains from the sacrum to the crest of the ilium, heat and pulsation in the sacrum. White catarrh when walking or exercising, severe pain at the close of urination. Eruptions that appear in the spring time. Eruptions of various kinds that are aggravated on passing from a warm room to the open air.

Secale cornutum. Green brown, offensive catarrh in thin, scrawny women. Creamy catarrh with weakness and venous congestion. Ulcers on the pudendum which spread rap-

idly. A peculiar feeling of numbness and formication in the fingers as if they were asleep. Prickling in the fingers. This is a marked concomitant symptom of Secale. It is characteristic of this drug that all the symptoms are aggravated at night, by touch and from external warmth, and relieved from cold. The skin is dry, dingy, and wrinkled.

Senecio. Genital catarrh in little girls preceded by headache. Sleeplessness; irritable bladder, especially at night. Amenorrhœa.

Sepia. Gelatinous catarrh. Sensation as if the uterus would fall out of the vagina, she must cross her legs to prevent it from doing so. The cervix is swollen and dry, and does actually protrude from between the labia. The os uteri is wide open and will admit the finger, even when not lacerated. Yellow catarrh most profuse before the menses. Acrid catarrh before the menses, especially in young women. Profuse yellowish green catarrh in the place of the menses. Yellowish green catarrh excoriating, with heat and pain in the sacrum. Menses a dirty brown color. Dryness of vulva and vagina, causing a very disagreeable sensation of friction when walking. The vaginal mucosa is a reddish brown color. Catarrh bloody, slimy, yellowish or like milk, especially profuse after urinating. Profuse, lumpy, fetid mucus, acrid, causing soreness of the pudendum. Dis-

charge as clear as water. Yellowish, or greenish watery catarrh during pregnancy, and at the climacteric. Catarrhal discharge coming away in starts. Thick, yellow, acrid catarrh during the day only, with constant pressure in the sides of the pelvis. Very profuse catarrh in children. Severe pruritus. Erosion and ulceration of the cervix. The cervix is greatly indurated. Offensive, excoriating catarrh during pregnancy. Pain in the sacrum extending through the hips and thighs to below the knees. Faintness, nausea, exhaustion, an all gone feeling in the pit of the stomach. Constipation. Herpetic eruptions. Brown spots on the skin. Sad, gloomy, and despondent. Suited to persons with dark hair, of rigid fibre, but of a mild, gentle disposition.

Silicea. Acrid catarrh before the menses, with sensation of swelling of the vulva, and soreness of the perineum. Watery catarrh in the place of the menses. Profuse yellow, excoriating, tenacious catarrh. The entire genital mucosa is red, vascular, moist, and exquisitely sensitive, rendering sexual intercourse impossible. Chronic headache relieved by warmth, and by having the head wrapped. Profuse sour perspiration on the head in the evening. Exhaustion from erethism. Want of vital heat, not renewed by exercise. Strong desire to be magnetized.

Swelling and inflammation of glands. Chronic suppuration. Especially suited to youth and adolescents.

Stillingia sylvatica. Copious mucopurulent catarrh, with rheumatic pains, chiefly periosteal. Secondary syphilis.

Sulphur. White watery, copious catarrh, coming in gushes, staining the linen yellow. The discharge contains yellow granules like crushed mustard seeds. Chronic catarrh causing burning and smarting of the vulva, and thighs (pathognomonic). Pudenda sore and burning, milky catarrh. Smarting as from salt, aggravated at night. The patient must bathe with warm water, cold water aggravates the soreness, and smarting. Burning in the vagina, she cannot remain quiet, must constantly shift her position. Yellow, excoriating catarrh a fortnight before menses. Menstruation is too early, and lasts too long. Hot flashes at the climacteric. Bearing down pains, congestion of the uterus. The Sulphur patient is very sensitive to the open air, and will not be bathed; she takes cold easily. Affections following suppressed eruptions. There is an offensive odor from the skin, despite frequent bathing, to which however there is an aversion. A marked tendency to congestion of the internal organs. Suppuration, the pus being of foul odor. Comedones, frequently

on the face. Acne punctata. Adapted to lean persons who never stand straight, or sit up straight. Stoop shouldered young girls. Peevish, fretful disposition.

Sulphuric acid. Catarrh acrid and burning, milky or transparent, or of bloody mucus. Appearing at the climacteric, with hot flashes.

Sumbul. Catarrh of white mucus, especially when sitting, with hot flashes at the climacteric. Nervous palpitation of the heart in hysterical subjects at the change of life, aggravated by thinking of how the heart is acting.

Syphilinum. Profuse, thick yellow catarrh, with flabbiness of the vaginal mucosa. Soreness of the vulva with mucopurulent catarrh in children, aggravated at night. Acrid, causing itching, and inflammation, increased from the warmth of the bed. Uterine and ovarian diseases with profound nervous disorders, especially in married women. Affections of the left ovary. All the conditions are aggravated at night, and many from the heat of the bed.

Tabacum. Simple catarrh following menstruation, or during the change of life. The patient feels cold, and has a sense of excessive wretchedness. This latter condition is most marked under Tabacum, as is an almost constant sick headache.

Tarantula. Sanguineous catarrh, with constant desire to urinate. Mucopurulent catarrh before menstruation, with intense sexual excitement. Catarrh causing burning and smarting, with painful uneasiness in the coccyx. Enlargement of the cervix. Chronic vaginitis with granulations in the vagina, and on the portia vaginalis. Hyperesthesia of the entire nervous system, the least excitement irritates. Hysteria with trembling of the body. Cannot remain quiet, she is constantly moving the hands and feet. All the nervous symptoms are aggravated by music, which was formerly enjoyed, and most agreeable to her. Sexual excitement, even nymphomania, induced by irritation of the terminal nerves of the genital organs, rather than by any cerebral disturbance.

Terebinthina. Sanguineous, offensive catarrh with fibroid enlargement of the uterus. Burning in the uterus, pains at the crest of the ilium aggravated by the least motion or jar in walking or riding. Neuralgia in the vagina. Burning that extends along the large nerve trunks.

Thuja. Yellowish catarrh causing smarting of the vagina and vulva. Bland mucous catarrh from one menstrual period to another, which leaves a yellowish green stain on the linen. Burning and smarting in the vagina when walking. Congestion of the left ovary.

Squeezing pain in the ovary. Erosion of the os uteri, on which there are spots like aphthæ. Uterine polypus. Warts and condylomata, and other excrescences about the vulva; these are flat without pedicles. Seedy warts, pedunculated, oozing moisture which has a peculiar coppery odor. Wandering rheumatic pains aggravated by warmth, relieved by cold.

Trillium pendulum. Profuse yellow and thick catarrh between the menstrual periods. Sanguineous catarrh with great prostration. A menorrhagic history, the blood being bright red and coming in gushes, is an essential part of the Trillium gynæcological picture.

Urtica urens. Acrid, excoriating catarrh, with stinging itching and œdema of the vulva. Pricking and stinging characterizes this remedy. Urticaria.

Ustilago. Excoriating albuminous catarrh before menstruation, which is too early and profuse, the flow being bright red, and in gushes when rising from a seat, or after having been startled, or frightened. Or at times the menstrual flow is dark, in clots that are expelled from the vagina where they form. Neuralgia of the ovaries. Tall slim women with fair complexion.

Viburnum opulus. Thin, yellow white or colorless catarrh except during stool, when it be-

comes thick yellow, and streaked with blood. Catarrh for two days following menstruation, yellowish white. Dysmenorrhœa with drawing in the anterior muscles of the thighs. Pains begin in the back going around the loins to the anus and to the pubic bones, like labor. Membranous dysmenorrhœa. Especially indicated for tall slender women who suffer from chronic dysmenorrhœa, spasmodic, or membranous.

Xanthoxylum. Great increase of the catarrhal discharge during the time when the menses should appear. Dysmenorrhœa with agonizing pains driving the patient almost distracted. Neuralgic pain following the course of the genito-crural nerve. Suitable for women of spare habit, and of a delicate nervous temperament. Pains that run down the thighs, with scanty and retarded menstrual flow.

Zincum. Thick bloody mucus after menstruation, or before the flow, preceded by cutting colic, causing itching of the vulva. Thick mucous catarrh, especially in the morning on rising. Thick and slimy discharge with sensitiveness of the vagina and vulva. Acrid and excoriating catarrh in the place of the menses. Pruritus which leads to masturbation, from which nymphomania develops. Varicose veins of the pudendum. Ulceration of the uterus; there is a bloody dis-

charge, the ulcerated surface being without sensation. Left ovarian neuralgia. There is great lassitude, especially upon waking in the morning, even after a good night's sleep. Cerebral exhaustion. Rhagades mostly between the fingers; painful cracking of the skin.

Zizia. Catarrh bland and profuse, commences on the second day after menstruation and continues slight in quantity, at first acrid, later becoming bland and copious. Acrid catarrh following profuse menstruation. Sudden suppression of the menses, or they may appear at the regular time but cease after twelve hours.

REPERTORY.

PART II.

VARIETIES OF CATARRH.

Albuminous. Ustilago, Borax.

Bloody. Lycop., Merc., Mez., Phos., Phos. acid., Physos., Viburnum (streaked with), Sabina (fetid), Sepia, Copaiva, Coffea c. (mucous), Conium.

Clots. Curare.

Creamy. Secale, Calc. p., Natrum p.

Curdy. Helonias.

Egg, *like the white of.* Am. m., Borax, Bovista, Calc. c., Hydrastis, Lilium t., Mez., Platinum.

Gelatinous. Sepia.

Ichorous. Sabina.

Lumpy. Sepia, Ant. c. (of mucous), Aloe (like jelly), Calc. c. (of pus), Psorinum.

Meat, *like the washings of.* Cocculus, Kali jod.

Milky. Sarrac., Phos., Puls., Sabina, Sulph. a., Nat. p., Niccolum, Kali jod., Kali m., Angustura, Calc. c., Ferrum, Gelsemium, Conium, Copaiva, Carbo v., Coffea c.

Mucous. Caulophyllum, Copavia, Conium, Eucalyptus, Actæa r., Agnus c., Aurum m., Nitric a., Nux v., Puls., Oleum a., Origanum, Sulphuric a. (bloody), Sumbul,

Mucous—*Continued.*

Thuja, Tabacum, Zincum (bloody), Lachesis, Mez., Phos. a., Podophyllum.

Muco-purulent. Æsculus h., Alumen, Bufones, Canth., Carbo a., Cocculus, Sabina, Merc., Merc. c., Merc. iod. f., Stillingia, Syphilinum, Tarantula.

Purulent. Bufones, Calc. c., Calc. s., Copaiva, Curare, Ham., Hepar s., Hydrastis, Ignatia, Kali ferro., Robina.

Slimy. Amm. m., Carbo a. (bloody), Phos., Sepia.

Sanguineous. Arg.n., Ars., Baryta c., Calc. s., Canth., Cocculus, Ham., Kreosot., Tarantula, Terebin., Trillium, Ant. t., Aloe, Amm. m.

Shreds. Canth. (of mucus), Leptandra.

Starchy. Borax, Sabina.

Stringy. Bovista, Merc., Hydrastis, Kali b., Nit.

Transparent. Alumina, Nat. m., Palladium, Sulph. a., Podophyllum, Stannum.

Thick. Mag. m., Nat. c.

Thin. Anacardium, Asafœtida, Carbo v., Lycopod., Iodine, Lilium t., Naja t., Oleum a., Phos. a., Viburnum op.

Tough. Hydrastis (mucus).

Tenacious. Phytolacca, Silicea, Kali b.

Watery. Amm. c., Ant. c., Hydrastis, Kali jod., Mag. c., Mag. m., Murex p., Nat. p., Niccolum, Sarracenia, Silicea, Cham., Helonias.

Water. Sepia (as clear as).

THE COLOR OF THE DISCHARGE.

Bluish white. Amb. g.

Brown. Amm. m., Kreosot., Nitric a., Secale.

Coffee grounds. Nitric a.

Dark. Helonias.

Green. Apis, Asaf., Bovista, Carb. a., Cubeba, Kali jod., Kali s., Lachesis, Merc., Murex p., Natr. m., Nitric a., Secale, Graph.

Honey, *the color of.* Natr. p.

White. Ars., Aurum m., Borax, Conium, Kreos., Mag. c., Naja t., Oleum a., Palladium, Physostigma, Podophyllum, Robinia, Sarrac., Sarsap., Stannum, Sulph., Sumbul, Syphilinum, Viburnum.

Water, *like muddy.* Nitric acid.

Yellow. Æsculus, Ars., Alumina, Angustura, Argent. n., Asarum, Aurum m., Bovista, Carbo v., Chamomilla, Colocynth, Conium, Cubeba, Inula, Iodine, Kali b., Kali jod., Kali m., Kali s., Kalmia, Lachesis, Lilium t., Lycopodium, Merc. c., Merc. jod. r., Myrica c., Natr. c., Nux v., Palladium, Phos. a., Robinia, Sabina, Sepia, Silicea, Stannum, Sulphur, Syphilinum, Thuja, Trillium, Viburnum.

THE NATURE OF DISCHARGE.

Acrid. Alumina, Apis, Amm. c., Ars., Ant. c., Berberis, Borax, Calc. c., Caulophyllum,

Acrid—*Continued.*
Cham., Chel., Conium, Copaiva, Cubeba, Eucalyptus, Nat. m., Fluoric acid, Graph., Hydrastis, Kali jod., Kreosot., Lilium t., Mag. c., Nat. p., Puls., Nat. s., Nitric acid., Ranunculus, Robinia, Sepia, Silicea, Zizia (in the beginning), Sulph. a., Syphilinum, Urtica u., Zincum.

Bland. Caulophyllum, Zizia, Cyclamen, Kali ferro., Kali m., Kreosot., Lilium tig., Pulsatilla, Ranunculus, Thuja.

Burning. Carbo a., Conium, Sulph. a., Tarantula.

Corrosive. Alumina, Arg. n., Aurum m., Carbo a., Carbo v., Calc. c., Ferrum, Ignatia, Iodine, Kali jod., Nat. s., Ranunculus, Ruta g., Sabina, Sang., Silicea.

Excoriating. Graph., Kreosot., Merc. c., Myrica c., Phos., Psorinum, Urtica u., Ustilago, Zincum.

Hot. Hydrastis.

Irritating. Murex p., Phytolacca, Alumen, Alumina.

Scalding. Sulphur.

Smarting. Ferrum, Lachesis, Lilium t., Sulphur (like salt), Tarantula.

Water, *sensation of warm.* Borax.

THE MANNER IN WHICH THE DISCHARGE TAKES PLACE.

In gushes. Gelsemium, Graph., Lycopod., Nitric acid (sudden), Sepia, Sulphur.

Fits and starts. Calc. c.
Paroxysms. Ant. t.
Intermitting. Carbo v.

GENERAL CONDITIONS AND CONCOMITANTS OF THE DISCHARGE.

Abdomen, *dull aching in the.* Leptandra, Inula (sensation of moving in the).
Angina pectoris. Kalmia.
Abortion, *tendency to.* Sabina.
Air, *aversion to fresh.* Natrum c.
sensitive to fresh. Hepar s., Ant. c.
Back, *aching in lower part of the.* Gelsem., Helonias.
ache, Aurum m., Baryta c., Puls., Podophyllum.
in the small of. Kali ferro., Mag. s., Nitric a.
lameness. Æsculus, Conium.
lumbago. Kali jod., Nux v., Oleum jec.
rheumatism of the. Actæa r.
weakness of the. Graphites.
spinal irritation. Nux v.
drawing from the, to pubes. Sabina.
pain begins in the, extending to the loins, anus and pubic bones. Viburnum.
Bowels, *constipation.* Æsculus, Amm. m., Alumen, Aloes, Collinsonia, Cubeba, Graphites, Nuv v., Sepia.
Bladder, *irritable.* Canth., Erigeron, Leptand., Senecio.
sharp pain in the. Prunus.

Blood, *bright red.* Ustilago.
dark clots. Sabina, Ustilago.
fluid. Ant. c.
Bilious. Cubeba, Chel., Berb.
Broad ligament, *spasms of the.* Actæa r.
Bearing down. Lilium t., Nat. c., Nux v.
Breasts, *swelling of the, suppuration.* Phytolacca.
tenderness of the. Helonias.
Breath, *loss of, on going up stairs.* Iodine.
Breathing, *difficult.* Stannum.
Bathing, *aversion to.* Sulphur.
Brain, *sensation as if revolving.* Robinia.
Colic. Natrum c., Colocynth., Mag. c.
Coccyodinia. Fluoric a.
Coccyx, *pain from, into the rectum and the vagina.* Kreosote.
Coitus, *impossible because of sensitiveness of the vagina.* Silicea.
Coldness of extremities. Ferrum.
Chilliness, *relieved in the open air.* Pulsatilla.
Chilliness. Cyclamen.
Cold, *takes easily.* Am. c., Sulph., Oleum jec.
Cough, *alternates with catarrh.* Iodine.
spasmodic. Cyclamen.
Convulsions. Caulophyllum.
Congestion, *active.* Erigeron, Gelsemium.
Debility. Hydrastis, Calc. c., Carb. v.
Emaciation. Arsenicum.
Epilepsy. Cedron.
Exertion, *aversion to making any.* Natr. c., Ant. t.

Exhaustion, *cerebral.* Zincum.
Face, *comedones on the.* Sulphur.
acne. Sulphur.
red. Gelsemium, Ferrum.
pale. Helonias, Ars.
sallow. Helonias.
Fall, *bad effects of.* Conium.
Faint, *tendency to.* Cyclamen.
Feet, *cold.* Phos.
Fingers, *pricking in the.* Secale.
numbness of the tips of the. Stannum.
cracks between the. Zincum.
Groin, *strained feeling in the.* Amm. m.
dragging in the. Ferrum.
Glands, *swelling of the.* Kali jod., Silicea, Phytolacca.
Head, *constant sick headache.* Tabacum, Natr. m.
occipital ache. Æsculus, Cocculus, Gelsemium, Silicea.
ache every two weeks. Niccotin.
sour perspiration on the. Silicea.
pressure on the. Asarum.
ache, nervous. Arg. n.
as if it were full of boiling water. Robinia.
Heart, *valvular diseases of the.* Kalmia.
palpitation of the. Sumbul, Nux m., Baryta c.
hypertrophy of the. Kalmia.
functional affections of the. Nux m.
pain in the. Kalmia.
Hands, *constant movements of the.* Tarantula.
cold. Phos.

Hyperesthesia *of the entire nervous system.* Tarantula, Cocculus.
Hysteria. Phos. a., Gelsemium, Asaf., Sumbul, Tarantula.
Hæmorrhage, *tendency to.* Erigeron.
Lassitude. Zincum, Carbo v.
Languor. Helonias.
Lymphatics *swollen.* Bromine.
Lips blue. Carbo a.
Labia, *pudenda, aphthæ of the.* Carbo v.
biting like salt. Canth., Kali jod., Sulph.
burning. Ars.
cracks. Nitric a.
cervix, protruding from the. Sepia.
excoriations. Lycopodium.
eczema on the. Lycopodium.
itching. Origanum.
heat in the. Helonias.
mealy spots on the, with itching. Lilium t.
neuralgia of the. Apis.
œdema of the. Apis, Phos.
patches, white, on the. Merc.
pulsation in the. Calc. p.
rawness of the. Carbo v.
red spots on the. Carbo v., Helonias.
soreness of the. Sepia, Sulphur, Bovista, Carbo v.
swollen. Amm. m., Colocynth., Helonias, Lachesis, Merc.
swelling of the right. Apis.
ulcers on the. Secale.

Labia—*Continued.*
varices on the. Calc. c., Zincum.
voluptuous itching of the. Calc. p., Coffea c.
Love, *disappointed in.* Calc. p.
Mental states and symptoms.
Arrogant. Platinum.
Changeable mood. Asaf., Ignatia.
Clairvoyant. Nux m.
Mental symptoms improve with the increase of the catarrh. Murex p.
Depressed. Amm. m., Agnus c., Sepia.
Despondent. Sepia.
Dullness. Agnus c.
Grief, suppressed. Ignatia.
Homesick. Ignatia.
Insanity caused by effort to control intense sexual desire. Origanum.
Irritable. Bovista, Cham., Ignatia, Nux v., Tarantula.
Irascible. Nux v.
Listless. Amm. c.
Melancholia. Ignatia.
Mesmerized, strong desire to be. Silicea.
Peevish, fretful. Sulphur.
Suffering, intolerant of. Cham.
Weeping mood. Phos., Puls.
Masturbation, *induced by itching of the genitals.* Zincum, Origanum.
Menstruation, *catarrh in the place of.* Graph., Nux v,, Silicea, Sepia, Zincum, Ars., Cedron, Cocculus, Cubeba, Ferrum.

Menstruation—*Continued.*

before. Zincum, Borax, Cedron, Bovista, Silicea.

after. Agnus c., Tabacum, Viburnum, Zizia, Bovista, Graphites.

early. Calc. c., Calc. p., Sulph.

delayed. Graphites, Calc. s., Cyclamen, Puls.

checked. Ant. c., Zizia, Niccolum, Puls., Phos.

profuse. Helonias, Kali ferr., Iodine, Secale, Ustilago, Trillium, Zizia, Ferrum, Sabina.

at night. Amm. m.

only at night, in bed. Cyclamen.

ceases when rising from bed. Cyclamen.

during the day only. Causticum.

burning and itching before. Calc. c.

eruptions precede. Dulcamara.

painful (dysmenorrhœa). Viburnum, Xanthoxylum, Caulophyllum, Collinsonia, Puls.

in gushes. Ustilago.

epilepsy during. Cedron.

Mons veneris, *blisters on the.* Phos.

eruptions, sero-purulent on the. Conium.

hair, falling off of the. Natr. m.

itching of the. Natr. m.

pimples on the. Natr. m.

Muscles, *weakness of the.* Ferrum, Physos.

twitching of the. Nux v.

lax. Mag. c.

Nervous, *excitable.* Gelsemium.

depressed. Leptandra, Xanthoxylum.

Neuralgia. Gelsemium, Terebinthina.
genito-crural. Xanthoxylum.
anterior crural. Podophyllum.
Neurasthenia. Phos., Kali p.
Odor of the catarrh, *offensive.* Ars., Asaf., Bovista, Carb. a., Colocynth, Cubeba, Carbolic a., Eucalyptus, Kali jod., Graph., Helonias, Leptandra, Lilium t., Kreosot., Lyc., Nitric a., Psorinum, Robinia, Sabina, Sanguinaria, Sarrac., Sepia, Secale, Terebinth.
sour. Curare.
of old cheese. Hepar s.
as of the menses. Causticum.
from the body, offensive. Hepar s., Sulph.
sour. Mag. c.
Ovaries, *pressure and burning in the.* Canth.
throbbing in the. Copaiva.
dull pain in the. Lilium t., Podophyllum.
congestion of the. Naja t., Thuja.
neuralgia of the. Ranunculus, Lilium t., Ustilago, Apis.
ovaritis, chronic. Lilium t.
left. Syphilinum, Thuja, Ustilago, Naja, Phos., Psorinum, Alumen, Bromium.
right. Apis, Palladium, Podophyllum.
Perineum, *dragging in the, relaxed.* Murex p., Silicea (soreness).
Purpura hemorrhagica. Lachesis.
Pelvic cellulitis. Kali m.
Pelvis, *pressure in the.* Sepia.

Pains *appearing suddenly, disappearing gradually.* Puls.
increase and decrease gradually. Stannum.
bearing down. Ferrum, Caulophyllum, Sepia.
flying. Æsculus.
spasmodic. Erigeron.
lancinating. Mag. c.
labor like. Ignatia.
lightning like. Mag. c.
as of a knife. Gelsemium.
change location, suddenly. Puls.
squeezing. Thuja.
when sitting as if something were being thrust up into the vagina. Ferrum jod.

Pruritus. Alumen, Amb. g., Anacard., Angust., Kali b., Calc. c., Puls., Sepia, Ignatia, Petrol., Collinsonia, Cubeba, Helonias, Hydrastis.

Prostration. Carbo a., Trillium, Robinia.
develops rapidly. Calc. c.

Phlegmasia alba dolens. Natr. s.

Rheumatism. Stillingia, Phytolacca, Kalmia (shifting).
alternating with catarrh. Kali b.
articular. Kalmia.

Sacrum, *heaviness in the.* Aloe.
lameness in the. Æsculus.
weakness in the. Graphites.
cramps in the. Psorinum.
heat in the. Sarsap., Sepia.

Sacrum—*Continued.*
pulsation in the. Sarsap.
pains from the, extending to the hips and thighs. Sepia.
labor like pain from the, to ilium. Sarsap.
sacro iliac joint. Oleum j.
Sexual symptoms and conditions. *Congestion.* Amm. m., Fluoric a.
excitement. Agnus c., Amm. m., Calc. p., Coffea c.
intense. Murex p., Origanum, Tarantula.
development premature. Platinum.
desire excessive. Origanum, Platinum.
irritation of organs. Canth.
nymphomania. Amb. g., Ant. c., Phos., Tarantula.
sensitiveness of the organs. Canth., Platinum.
causes spasm during examination. Platina.
Skin, *bleeds easily.* Lycopodium, Mez.
cracking of the. Zincum.
eczema on the genitals. Nitric a.
itching like flea bites. Oleum a.
crusts on the. Graph., Mez.
fissures of the. Petroleum.
eczematous eruptions on the, having the odor of carrion. Psorinum.
vesicular eruptions on the. Ranunculus.
shingles. Ranunculus.
eruptions in the spring. Sarsap.
dry, wrinkled. Secale.

Skin—*Continued.*
blisters. Ranunculus.
moist eruptions on the. Graphites, Bovista.
herpes. Dulcamara, Sepia.
varicose veins. Fluoric acid.
erythema (thighs). Cubeba.
warts, having a coppery odor. Thuja.
surfaces, irritation of the. Canth.
capillaries near the surface of the. Caust.
plethora, venous. Carbo a., Secale, Ham.
exanthemata, suppression of, from cold. Phos. a.
stinging of the. Urtica u.
lax and hanging. Merc., Baryta c.
Stains of the clothing caused by the discharge, *green.* Bovista, Lilium t., Thuja.
brown. Lilium t.
yellow. Agnus c., Carbo a., Kreosot., Nux v., Prunus, Sulphur.
saffron. Lactic acid.
corrodes the linen. Iodine.
stiffens the linen. Kreosote, Lachesis, Kali b.
Suppuration. Sulphur, Silicea.
Scarlet fever, *sequelæ of.* Bromine.
Sterility. Amm. m., Phos.
Spasms. Nux v.
Stomach, *gone feeling in the.* Sepia.
Sleeplessness. Senecio.
Trembling of the body. Tarantula.
Thighs, *pain in the.* Murex p., Podophyllum.
pain running down the. Xanthoxylum.
drawing in the. Viburnum.

Tongue, *awakens with a dry.* Nux m.
Throat, *constriction of the.* Oleum a.
Uterus, *enlarged.* Lachesis, Murex p., Carbo a., Carbo a., Iodine, Kali jod.
subinvoluted. Actæa r., Kali b., Kali jod., Nux v.
metritis, chronic. Ant. t., Eupator. pur., Amm. m., Merc., Phos. a.
indurated. Amm. m., Iodine, Nux v., Conium.
retroflexed. Æsculus.
retroverted. Caulophyllum.
prolapsed. Alumina, Angustura, Arg. n., Amm. m., Ferrum jod., Helonias, Natr. p., Nux v., Puls.
misplaced. Conium, Helonias.
pain in the. Cedron, Bufones, Inula, Gelsemium (cramps), Sarrac., Terebinth.
burning in the. Calc. c., Terebinth.
tenderness of the. Nux v., Palladium.
fullness, sensation of. Gelsemium.
fibroids. Kali jod., Terebinth.
congestion of the. Nat. s., Sulph., Caulophyllum.
uterosacral ligaments relaxed. Lilium t.
polypus of the. Thuja.
sensation as if the, would fall out. Sepia.
Uterine cervix, portia vaginalis, os uteri, *aphthæ on the.* Thuja.
erosions. Alumen, Arg. n., Asaf., Carbo a. Conium, Helonias, Fluoric a., Hepar s.,

Uterine cervix—*Continued.*

Hydrastis, Kreosote, Leptandra, Merc., Mez., Nitric a., Phytolacca, Sepia, Thuja.

ulceration of the. Arg. n., Bufones, Hepar s., Hydrastis, Phytolacca, Merc., Sepia, Phos. a., Sanguinaria, Lycopodium, Iodine.

granulations on the. Arg. n., Nitric a. (bleeding easily).

hardness, induration of the. Carbolic a., Hydrastis, Iodine, Sepia, Conium, Graphites.

swelling of the. Iodine, Murex p., Sarrac., p., Sepia, Canth., Graphites.

elongated (cervix). Murex p.

engorged. Tarantula, Lachesis (dark blue).

ectropion of the mucosa of the. Lachesis.

burning in the. Bufones.

bruised feeling in the. Robinia

darting pains in the. Fluoric a.

dryness of the. Sepia.

Urethral caruncle. Coffea c., Eucalyptus.

Urine, *saturated with bile.* Myrica.

biting like salt. Causticum.

frequent. Nat. c., Psorinum, Eupatorium pur.

constant desire to urinate. Tarantula.

painful. Aloe, Canth., Copaiva.

pain at the close of urinating. Sarsaparilla.

pressure though little urine is in the bladder. Ruta g.

if retained cannot be voided. Ruta g.

Urine—*Continued.*

oily iridescent film on the. Alumen.

having the odor of violets. Inula, Eucalyptus g.

Vagina, *aphthæ of the.* Borax, Caulophyllum, Helonias.

burning in the. Ars., Amm. m., Cham.

ecchymotic patches on the. Arg. n.

engorgement of the. Iodine.

epithelium, desquamation of the. Kali s.

dryness of the. Lycopodium, Sepia.

granulations on the. Alumen, Tarantula.

heat of the. Colocynth, Ham. (relaxed).

itching of the. Kreosot., Merc., Sabina, Syphilinum, Ant. t., Berberis, Ferrum jod., Fluoric a.

lymphatics of the, swollen. Kali s., Bromine, Graphites.

inflammation of the. Merc. c., Syphilinum.

mucosa of the,, swollen. Alumen, Kreosot., Ferrum jod., Nux v., Graphites.

puffy. Kreosot.

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absence of mucus. Lycopodium.

vascular. Silicea.

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sensitive. Alumen, Silicea, Zincum, Ham.

smarting of the. Ant. c., Graphites, Cham., Conium, Thuja, Xanthoxylum.

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Vagina—*Continued.*
stitches in the, from below upwards. Kreosot.
neuralgia of the. Terebinthina.
walking, uncomfortable dryness in the, when. Sepia.
Vaginismus. Canth., Ignatia.
Vaginitis. Amm. m., Berberis, Cubeba, Ham., Nitric a., Tarantula.
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Vulva, *aching, throbbing in the.* Calc. c.
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condylomata on the. Thuja.
dryness of the. Sepia.
eruption, itching. Nux v.
excoriation of the. Amm. c.
heat of the. Sarrac.
herpes on the. Petroleum, Dulcamara.
itching of the. Calc. c., Carbo v., Causticum, Ferrum, Ferrum jod., Phos. a., Sabina, Urtica u., Zincum.
inflammation of the. Merc.
miliary eruption on the. Sarrac.
prurigo. Carbo v.
œdema of the. Apis, Urtica u.
pricking in the. Mez.
soreness of the. Syphilinum.
sensitiveness of the. Coffea c.
smarting of the. Sulphur, Thuja, Causticum, Ferrum.
swelling of the. Calc. c., Canth., Cedron, Natr. s., Silicea.

Vulva—*Continued.*
stitches in the. Conium.
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varices on the. Carbo v.
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Menstruation, *before.* Baryta c., Carbo v., Ferrum, Sulph., Tarantula, Palladium, Sepia, Lachesis, Hydrastis.

between. Anacard., Colocynth., Trillium.

after. Hydrastis, Kali ferr., Kalmia, Merc., Niccolum, Palladium, Sepia, Phós. a., Carbo v., Carbo a.

during. Iodine.

following suppressed. Ruta g.

Morning. Amm. m., Natr. m., Zincum, Graphites (on waking).

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STAGES OF LIFE, CONSTITUTION, DISPOSITION, TEMPERAMENT.

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